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Psychocraft

BEING THE ART OF FOLLOWING THE LEAD OF INSTINCT
WHICH USES HUMAN ORGANIC MECHANISMS WITH
GIANT STRENGTH OR ARIEL TOUCH TO AVERT
DISASTER, CREATE GENIUS, PROPHETIC IN-
SIGHT, OR VERIFY FAITH WITH
SUPERORGANIC

INTUITIONS

INCIDENTALLY INTRODUCING A NEW IDEA OF THE PRINCIPLE OF

ONWARDNESS

INHERENT IN THE RACE EXPERIENCE OF MANKIND IN PLACE OF
THE HUXLEY MEASURE OF PROGRESS, INDIVIDUAL
SPORADIC GENIUS, AND THE PAGAN FUTILITY
OF ETERNAL RETURN OF ENDLESS CYCLES
OF PURPOSELESS EXISTENCE

WITH ILLUSTRATIONS BY THE AUTHOR

GIVING FOR THE FIRST TIME IN OVER TWO THOUSAND YEARS A
DEFINITE OPERATIVE SOLUTION OF THE GREATEST
MYSTERY OF ANCIENT HEBREW LITERATURE

The Oracle of Aaron's Breastplate

CAREFULLY WORKED OUT AND PRACTICALLY APPLIED AS HEREIN
PRESENTED IN THE ELEGANT AND INFALLIBLE

ORACLE OF ELLU

BY C. H. EMERSON

"IS THERE ANYTHING WHEREOF IT MAY BE SAID, SEE THIS IS NEW? IT
HATH BEEN ALREADY OF OLD TIME WHICH WAS BEFORE US."

—Eccl. I, 10.

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BY

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LC Control Number



tmp96 026015

Press of Southworth Printing Company, Portland, Maine

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'TWERE A SMALL THING TO SEE WRITTEN HERE THIS LITTLE TOKEN OF MY
GRATEFUL LOVE, TO MY BROTHER

EDWIN RUTHVEN EMERSON.

UNLESS, PERCHANCE, YOU BE ONE OF THE FAVORED, WHEN THE GENTLE
POWER OF MEMORY, STIRRED BY THE NAME WILL GLOW AGAIN
TO THE HEART'S INSTINCTIVE TRIBUTE,

"THE RAREST SPIRIT I EVER KNEW."

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Motto: BACK TO PRIMITIVE INSTINCT.

VEN a Hottentot's theory of mind should be a subject of interest to science. As this is a tremendously scientific age, I may get a popular hearing. In my philosophy are two separate and distinct ENERGIES that constitute "Life." This is not the old theory of vitalism, because the superior of these two energies, is a force which not only produces chemical changes—therefore motion—but it does something more; it vitalizes that substance through which it acts, thus *originating* the organic conditions necessary for the generation of MIND, and is therefore superior to both chemical force and mind.

Nor is it modern spiritualism; but it will help make the recent prophetic utterance of that arch materialist, Ernst Haeckel, "Materialism is an ambiguous party word; spiritualism could quite easily be substituted for it," easier of comprehension. While the two energies are distinct, they join in the "structural unity" which constitutes humanity—God, instinct, mind. The grossest of these is mind—even the potentialities of chemical force, (innate affinities of matter), being of a superior order to mind, because that force never errs. Why and how mind errs, then, becomes a burning question, the answer to which cannot fail to help reconcile material science and religion. Though this is not theological, and so called "occultism" I abhor.

Each of the two energies is capable of generating and applying "specific energies" of its own kind. It is by co-operation of these that divination becomes a scientific possibility, by virtue of Free Will, which, along with Abstraction and Imagination, are *joint* products of these two energies. Their orderly cerebration produces science. While, on the other hand, INTUITION is a *specific* product of *one* of the two energies alone, as judgment is of the other. (See Tabulation, page 120.)

One of these two energies I call *Biologic*, the highest product of which is MIND — INTELLECT. But this specific energy can operate only through organisms. Something has first to contrive the organism. So, it is clear, this biologic energy must be directed, played upon, by an energy of higher intelligence,—that is, *superior to mind*.

The other of the two, I call *Superorganic Energy*, the highest product of which is INTUITION. Let us judge these energies by their fruits. Among the specific products of mind (which are not *all* bad), are evil, fear, doubt, disease, insanity, death, and among the products of intuition are faith, health, happiness, immortality. So we see that mind is a poor subject for worship. The insubordination of intellectuality is a menace. Telepathy is a delusion, “subliminal” mind is a myth; and even “faith” cures are not of the mind.

ooo

’Tis ELLU makes divination possible. ELLU might be called the god of intuitions and dreams; but that would be pagan and unscientific. ELLU, in reality, is but the unfolding of your own primitive instinct — (which has forever possessed the most amazing powers), into your own *Individual Independent Intelligence*, which strangely enough some famous modern writers have endowed with the slatternly habit of dodging “under the threshold of consciousness,” at the first shadow of an appearance of her lordly braggart-kitchen-master-mind, but which God himself saw fit to make immortal, compared with which, mind is inferior temporal and perishable.

When a nobody says a good thing, the cute listener seeks immediately to confront it with what “authorities” have said on that subject before him. Which is all very well, but the nobody can reply “He that hath ears to hear let him hear” for himself *aright!* Let him beware of mental illusions and hallucinations, proceeding from *distorted sense perceptions*; for there is a deep truth in the bard’s epigram, “A joke’s prosperity lies in the ear of him that hears it.” However, the nobody will proceed to humor the cute one with a few authorities.

What Some "Authorities" Have Said.

"To the eyes of a philosopher that attempts to re-absorb intellect in intuition, many difficulties vanish or become light."

—HENRI BERGSON,

Professor of the College of France.

"The story of the subconscious mind can be told in three words, there is none."

—HUGO MUNSTERBERG.

Professor of Psychology at Harvard College.

"Physiological experiment and simple self observation teach us that such an organ ('organ of representation' for intuitional mediation) has its own adaptive habits, its own peculiar memory, *one might almost say its own intelligence.*"

—DR. ERNST MACH.

Professor of inductive science, University of Vienna,
in "Analysis of the Sensations." p. 86.

(NOTE—*The italics are mine. The point is profoundly significant—
"Intellectuality alone can never grasp how life makes itself go."*)

"For me, spiritual content springs from the spiritual fact that there is something higher in man than the mind, and that that something *can control the mind.*"

—ARNOLD BENNETT.

NOTE.—The italics are mine. That "something" not only can "*control*" the mind's slow operations, but, on occasion, it can set the mind entirely aside, and *use* the brain and muscle mechanisms directly and independently, for purposes beyond the mind's grasp, *in critical moments*, as in rescues from imminent disaster by *instinctive acts* involving the most astonishing display of prodigious muscular power, applied instantaneously, where resort to the reflections of reason would have meant sure death; proved a dozen times in my own experience.

"To give it ('Life') beautiful and human proportions, it must be prolonged into the past and into the future. Into the past by study, into the future by intuition and dream. . . . Let us understand how to build our dreams, let us understand how to give them a scientific structure. For with this condition it is useful and good to be a dreamer."

—ANATOLE FRANCE.

"Abstraction is the sceptre with which man rules nature."
— DR. PAUL CARUS.

"If some one would make it his special study to find out how children can be assisted in cultivating the power of abstraction, he would perform a great service for the science and practice of education."
— C. H. JUDD, PH. D.,
Professor of Psychology, Yale University.

"A mind to which were given for a single instant all the forces of nature and the mutual positions of all its masses, if it were otherwise powerful enough to subject these problems to analysis, could grasp, with a single formula, the motions of the largest masses, as well as of the smallest atoms; nothing would be uncertain for it; the future and the past would lie revealed before its eyes."
— LAPLACE.

"In writing these words (above), Laplace, as we know, had also in mind the atoms of the brain. . . . It is not too much to say that Laplace's ideal is substantially that of the great majority of modern scientists." — PROFESSOR ERNST MACH,
(in Popular Science Lectures, p. 188.)

"It has always seemed to me incredible that we should not be able to know the future." — MAURICE MAETERLINCK.

"All who admit of the existence of Destiny will see nothing more than natural in the fact that she indicates the way at each turning of the road."
— DR. ARNALDO CERVESATO.

"Who can say if some day . . . intuition may not take the place of observation, experiment, logic and calculation?"
— LAURA I. FINCH,
(Editor-in-chief London Annals of
Psychical Science.)

"And Abiathar brought thither the ephod. And David inquired at the Lord, saying, shall I pursue after this troop? Shall I overtake them? And he answered him, Pursue: for thou shalt surely overtake them, and without fail recover all."
— I Samuel xxx: 7, 8.

"The Urim and the Thummim (The Oracle of Aaron's Breastplate) are implied, . . . wherever in the earlier history of Israel, mention is made of asking counsel of the Lord by means of the ephod." — W. MUSS-ARNOLT,

(In the American Jrnl. of Semitic Languages and Literatures. Vol. xvi, p. 198.)

WHEN I say that to repeat the threadbare adage about the superiority of mind over matter, is to foster one of the most monstrous of the mind's own delusions, and when I say that the over adulation of mind (intellectuality), is a muddle and a menace, I would disclaim emphatically that it is in any sense a covert attack upon so-called Christian Science, or any other form of religious belief, for it is not. On the contrary, if there is any element of good in such a belief, what is here outlined would tend to put it upon the only truly "scientific" foundation it can hope to build upon for the future. For instance, one may take the book *Science and Health* and substitute therein the words *Instinct* and *Intuition*, for the words mind and Christian Science, wherever those words are used as synonymous with divine power, and thus begin the clearing up of an otherwise hopeless muddle of psychophysiological contradictions. To say "Mind is God," is not a clear discernment of apparent facts. *Instinct*, however, being of the superorganic energy, and *intuition* being of the soul, are really somewhat kin to our conception of God. Mind, the product of the amazingly fine skull mill mechanisms, *fashioned by instinct*, for the transformations of sensations and supersensual vibrations into human knowledge, is an astoundingly marvelous product surely, but compared with Pure Intelligence, or God, or even with instinct, it is a head made in a tin shop.

Mind is almost sure to exert a baneful influence whenever it attempts to meddle with the province of Instinct. Mind was the *necessary* product of the highest forms of organisms. This made it a necessary *evil*, since its nature to meddle is inherent and ineradicable. I consider it, therefore, the original source of all the evil there is in the world. The "problem" of evil is solved. It is a redundancy to speak of "mortal" mind since there is no other kind in existence. From the very nature of things there can be no "divine mind." The nearest possible human approach

to DIVINE INTELLIGENCE is through human instinct and intuition. But this book is anything but theological.

It must not be forgotten, when reading what Jesus and the scriptures say about the source of all evil being in the *heart*, and that it is not only inherently wicked, but "*desperately* wicked above all things," that in old Jewish psychology *the heart was the seat of the mind*. Intellect, love, the feelings and emotions, were all one thing. For they had not yet discriminated between the noble and transcendant powers of the RED element of life, over the dilettante and cringing Gray, so they quite naturally lumped them all in the *most evident* of the two powers. Which also goes to show the subtle cunning of mind's ambition to usurp the real initiative and throne of Life. The misfortunes of any form of religious worship will not be in what I, or any other outsider may say about it, but only in that its corner stone is gray instead of red.

However, this is a digression which gives unintentional prominence to a form of religious belief. The subject matter of this book deals with the question of the possibility of practical DIVINATION. It is psychophysiological and not theological. It does not discuss, and is not intended to affect or influence, one way or another, any form of *religious* belief whatsoever. "With charity for all and malice towards none," it declares that there has never been but one real obstacle to divination, and to possess the faith that moves mountains, and that one obstacle is the meddling mind itself. The power to accomplish it exists in human life, but it does *not* reside in mind. How Childish then to *deify* mind! Mind bungled along stupidly for unknown millions of years before a Harvey discovered the circulation of the blood; mind has not even yet discerned the secrets of the liver or the parathyroids; mind, after unknown millions of years of "life" experience on this thunder riven earth, only now begins to discover a few of the *commercial uses* of electricity and nothing of its nature. Call such stuff as that which *mind* is made of immortal? Let us back to our primitive Instincts, Prudence.

C. H. E.

Portland, Maine,
July, 1911.

Psychocraft

In Two Parts.

PART I.



The Oracle and the Wheel.

HERE exists in human life a very remarkable and mysterious something — faculty, property, power, force or what not, which the genius of language has thus far quite failed to grasp and embody in a word or phrase. It is not soul. It is not spirit. It is not mind. It is not reason. It is not intellect. It is not subconsciousness. It is not the budding of a needless “sixth sense.” It is not “subliminal” mind — (that ridiculous “ego” that dodges under the “threshold” of subjectivity, whose normal attitude resembles the mental state of the bulky bird that achieves insensibility by thrusting its silly diminutive head in the sand). And yet that mysterious something partakes somewhat of *all* the evasive properties and qualities, which most people attribute, more or less vaguely, to those much used terms — *and has a something more*, which is wanting in any one of them. To seize upon this naked and slippery vagabond of psycho-mentality, hold and clothe it in a phrase or word would seem an almost hopeless task. Yet it is very simple. Whether the *result* will be any more effective, or any less ludicrous as an exposure of parts, depends wholly upon *your* point of view, Prudence. For me it dispelled a dense fog.

(Allow me to add here this *personal* parenthesis: not being a professional or experienced writer of books — this being the first, I trust I may be excused the above undue familiarity with the time honored “Gentle Reader” of other authors. It cannot be said that it is not equally androgynous, for it fits a him or a her equally well. Besides it brings your *presence* nearer, and is therefore more inspiring than the colder impersonality of “Gentle

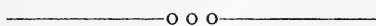
Reader," in whom is merged the disconcerting masses of the "intelligent and discerning public.")

If you try to fit my right glove to your left hand, both failure and the reason for it are very quickly evident. Figuratively speaking, that very thing happens when two people discuss psychic phenomena. No matter how learned they may be, they walk off, each with the others mismatched ideas. Only *they* never discover the difference. Now this is *not* due, as might be supposed, to the impenetrable psychophysiological mysteries of rights and lefts in the mechanisms of the sense organs and brain — (because there is an INDEPENDENT INTELLIGENCE in their "organs," that takes care of that for them). But rather to the different and confusing meanings given to words in common use by different people, and by the same people at different times, and in different connections. The opposing words *soul* and *instinct*, for instance; one generally construed as defining something spiritual in its nature as partaking of the divine, pure,—the other as inextricably anchored in, and contaminated with the grossest passions of flesh, are used interchangeably, and often indiscriminately by very learned authors. But the most common mistake of all is to confound *mind* and *soul* as the same attribute in life. The prime purpose of the book is to help remove that subtle source of confused thinking.

The words *subconsciousness* and *subliminal mind* are the most popular modern terms by which attempts are made to isolate and designate this nameless something that has an undoubted *separate existence* from the conscious reasoning faculty. But eminent psychological authorities say these terms are inaccurate, inapt, misleading, in that there cannot be any such thing as "*sub*" consciousness; the very ideas are contradicting. And as for a "threshold" dodging mind, that idea is also absurd. Others have written more circuitously about a great "mother reservoir" of pure intelligence, as something *outside* of "life," which the mind in certain states could tap. It cannot be that, any more than it is Luck or Destiny, because it is that which can *apply* the *laws* of natural forces to specific ends — on occasion, as history proves and I shall show.

The reason it cannot be covered by the words reason, intellect, mind, either separately or compounded, is because it is immeasurably superior to those particular attributes of life. Perhaps the word *instinct*, in its highest sense, comes nearer conveying an idea of this nameless something, than any of the terms in ordinary use. Anyway, Instinct is one of its chiefest instruments in shaping the affairs of life and destiny. I always have a feeling of profound gratification, whenever in the writings of great scientists, I come across such unconscious admissions of the *existence* of an Independent Intelligence superior to intellect, as appear in the assertion, repeatedly put forward, that some things they know "*instinctively*." It emphasizes the fact that there is not an iota of scientific evidence that any new "sixth sense" of a telepathic nature, is evolving, for the perception of obscure knowledge, too fine for the old fashioned senses. The power already possessed is enough. It is older than the race. It was in ectoderm and endoderm.

Note this most important fact: whatever else it may be, it is intensely *personal* and *individualistic*.



THERE'S always a cosy corner for superstition in every mind. The more cocksure learned the owner, the more elaborately will room be made for it. It's a bold and brassy thing to say, I know, Prudence, but for good cause as I will show. I believe that now, in this age of "wizard" science and invention, not only the popular, but the scientific mind is more superstitious than that of a savage, and just in that degree in which the scientist encounters more inexplicable things than the savage ever dreamed of. They are both human. "The world," says *Current Literature*, referring to the brilliant Frenchman, Gustave Le Bon and Sir Oliver Lodge as authorities, "is on the eve of a revival of superstition on a grand scale." Referring to the delusion of the N ray, and the turmoil it produced in the scientific world, Le Bon, who is called by the Paris *Cosmos*, the greatest of modern physicists affirms that "mere superstition had dominated the minds

of scientists to an extent that seems incredible to the person not familiar with the tendency of the worker in physics and chemistry."

So it is *not* the characteristic of ignorance. Quite the contrary. It is an expression of faith in the existence of illimitable possibilities. I remember when I was a child, — (born in Maine, under puritanical influences), that we boys used to vie with one another in enumerating the infinitesimal dwelling places of God. "God is in that little stone" — "In that teenty grain of sand" — "In that nail in the fence" — and so on. There was no wonder or curiosity over the *way* of it or the *fact* of it. It was all taken on a natural faith, both in the inexplicable itself, — such as God, thunder and lightning, the budding of trees and crops,—and in any *specialist* in any of those lines,—preacher, farmer, sailor. The scientist is just such a child; he places his implicit confidence in the statements of specialists in the scientific field. If there is any more superstition in the one case than in the other, it's likely to be with the scientist.

Is there any difference in principle between the savage's belief that the skin of an animal he has dreamed of, will give him supernatural powers, (as certain *colors* will)? and the idea of Josephus that when the magnificent sapphire connected with the Oracle of Aaron's Breastplate, changed to red it gave victory in war, and when to black, it meant disaster? and the materialists' scientific theory of atomistic hylozoism, which carried to a logical conclusion, would make the little colored crystals in the box *responsive* on occasion? Which of these three propositions is the more deeply tainted with *superstition*, think you? This is no covert slur on science. It is rather avering that this new age of science, which is the new light of the world, is *fast becoming more purely idealistic than ever before*. The undreamed of powers of the *Independent Intelligence* of man will help his mind *apply* the LAWS of the universe to ever higher ends,—but never impart that fantastic free willing which were the same as a child's pulling down the sun, as Emerson put it.

BEYOND all compare, the two most momentous ideas ever achieved by the *inspired* power of mind, and embodied in material inventions, were the wheel and the Oracle of Aaron's Breastplate. One was ensouled, if I may so express it, by the subtle *mechanical* principles that rule in the physical inorganic world, the other by superorganic forces belonging to the psychical *organic* world; both, therefore equally and inherently subservient to the principles of law and order that rule throughout the universe. There is not a particle more necessity for assuming the presence of anything mystic or occult in one than in the other. But strange to say, the one commonly considered the more *material* in its nature has led into depths not less profound than the immaterial. Science is today reaching across the unfathomable abysses of its own unverifiable hypotheses to clasp the helping hand of Psychology.

Of these two visible emblems, as it were, of the two worlds, organic and inorganic, the wheel and the oracle, the wheel has gone forward in an uninterrupted progress of triumphant development, adding achievement to achievement, with results of such amazingly life like complexities, that the ordinary mind stands stupefied and bewildered in any attempt to comprehend the further subtle possibilities of mechanics. While stranger yet, the other, involving more obscure but more subtly powerful phases of *energy*, suffering from the lost art of practical application, its principles misapprehended and despised, has fallen into the utter obloquy that covers the disreputable arts of black magic. But according to the prognostication of scientists, its new day is at hand.

The story of the wheel is an epic of intense interest. It has grown in its endless uses from the most humble beginnings up to the most multiplex applications of the mechanical powers. It has developed to such an extent that not only its applicability but itself, seems endowed with a miraculous power of pseudo intelligence, as we see it embodied for instance, in calculating machines, in linotype, and the modern printing press that can almost correct its own "proof."

A sort of consciousness of the vast importance of the invention of the wheel, lingered for centuries upon centuries in the

minds of men, indeed, the results of it are still visible. In some great nations, it has never lost a sort of reflex spiritual dominion over mind. For to this day, according to the translator of Professor Ernst Mach's lecture on the velocity of light, in India and Japan, and other Buddhistic countries the symbol of the wheel is held in the highest regard as the emblem of the invisible principle of law and order, and of the superiority of mind over matter. Mach himself, says, (*Velocity of Light* pp. 61, 62), "The wheel of a wagon appears to us a very simple and insignificant creation. But its inventor was certainly a man of genius. The round trunk of a tree perhaps first accidentally, led to the observation of the ease with which a load can be moved on a roller. Now, the step from a simple supporting roller to a fixed roller, or wheel, appears a very easy one. At least it appears very easy to us who are accustomed from childhood up to the action of the wheel. But if we put ourselves vividly into the position of a man who never saw a wheel, but had to invent one, we shall begin to have some idea of its difficulties. Indeed, it is even doubtful whether a single man could have accomplished this feat, whether perhaps centuries were not necessary to form the first wheel from the primitive roller.

"History does not name the progressive minds who constructed the first wheel; their time lies far back of the historic period. No scientific academy crowned their efforts, no society of engineers elected them honorary members. They still live only in the stupendous results which they called forth. Take from us the wheel, and little will remain of the arts and industries of modern life. All disappears. From the spinning-wheel to the spinning-mill, from the turning lathe to the rolling mill, from the wheelbarrow to the railway train, all vanishes."

Now if it has taken all the unnumbered centuries of physical life up to the present hour to write the engrossing story of the wheel, which is still incomplete, each new age closing with an expectant situation and "to be continued in our next,"—how can it be so much wondered at that the application of the principles of superorganic energy has been so long delayed, and the *Oracle* fallen into desuetude? But the mind of man is surely ready for a new installment of this other continued story.

IF the story of the wheel is an epic near its close, the story of the Oracle is but the preface to a parable—to an apologue in which men are just learning their A B C's in Nature's tongue. It is a most tremendously significant fact that the unrecognized Independent Intelligence of organisms, (some are inclined to confound this with Instinct), is that mysterious something which has absolute dominion over all the unconscious processes of life, thereby signifying that it must be familiar with all the requirements of Nature's laws, (which science is so laboriously probing for). Nay more, it is able to instantly *apply* them to the organisms' needs.

In the course of its constant mediations between the needs of organisms and the superorganic energy which it embodies, natural phenomena are produced, which have never failed to be more or less awe inspiring and bewildering to the intellect. So that from this source, superstitions and creeds without number have multiplied and thrived. The unconscious effort, more or less groping in the operation of all oracular devices was to reach the Independent Intelligence of the superorganic energy of life. This is the force which has remained unidentified and nameless, and utterly repudiated by science, (as a force to be reckoned with), down to the present day. But in the year 1871, Sir William Crookes named a supposititious phase of it, Psychic Force. It was not a happy term, rather unfortunate. It is misleading. Psyche was the name of the soul, personified *as a deified spirit*, in classic Grecian mythology. But psychic phenomena and psychic force, such as the learned researchers were investigating, namely movements of objects without contact, so-called "materializations," levitations, table tippings and the like, have about as much applicability to the soul as the hands and figures on the face of a clock have to the ear.

But even had the legitimate force concerned in such phenomena been fitly named, it could not have helped matters any, because such phenomena and the "force" that elicits them are utterly beside the question of *prescience*. In the true story of the oracle such visible phenomena possesses no special interest. They belong to the province of biologic energy or mind.

Where almost everybody else is hazy, Prudence, you and I will try to make some sharp distinctions concerning the various applications of "*energy*" in the realms of the organic and the inorganic worlds. The wheel it is clear, revolves only in the province of the inorganic world; impelled by the application of natural forces belonging to that world — (having very little to do with superstitions or spiritualism). Now while the general idea of energy is one of the absolutely unverifiable hypotheses of science — taken on faith — in the province of the wheel, the *laws* of its application are quite well apprehended, and so far, support the hypothesis. (I merely mention this fact to remind a possible *scientific* reader that there is no occasion to feel bump-tions over *assumptions* concerning energy.)

The wheel belongs to the inorganic world. But the *mind*, almost everybody believes, does not belong to that province at all, but revolves *only* under the laws of a separate province. That belief is wrong. That belief is the main source of all the obscuring haze that prevents clear thinking on the subject of the Oracle. *The MIND pertains essentially to the same province as the wheel!* Here is where the *materialist* smiles a broad and gracious approval. But wait till we make the whole significance of the distinction clear. What the wheel is to the mind of man in the province of the inorganic world, the mind itself is to the INDEPENDENT INTELLIGENCE of man in the province of the organic world, with all that that implies. That is to say, they are both powerful instruments, one a little more exquisitely organized than the other, but both in the hands of a superior SOMETHING that knows how to *apply* the various forms and degrees of the "specific energies" of science. (There is not herein the slightest leaning to theology.)

So much is clear.

Now for the further significance of the distinction, let us assume that the two provinces of the organic and the inorganic *are* distinct;—that there are different energies that rule therein; that in one there is the "energy" of the science of mechanics, in which *conservation* rules supreme, through all its manifold and multiplex *transformations* to "power," light, heat, electricity, radio-activities, transmutations, "wireless,"—until the mind stag-

gers and faints as the finer and finer transformations *seem* to lead up to and *across* the "borders of shadowland" into the immaterial: That in the other there is the energy that rules and directs the *mind* through all *its* varied transformations — (for the principle of conservation must be universal and eternal)—through all its transformations to irritability, to consciousness, to perception, to idea, to reason, to intellect, until its vast egoistic audacity would mount the throne of God Himself. Through it all, we assume that the distinction inheres, and we say there *must* be two energies if only after the manner in which there are two electricities,—and I call them, for the sake of the distinction, the *inorganic* energy of the wheel and mind, and the *superorganic* energy of "life" and "spirit." (And right here is where the materialist changes his smile to a frown, while his bold charger, sniffing the battle from afar, paws the earth and snorts aloud, but do not be disconcerted Prudence, there will be no charge.)

But the imperative necessity of logic here steps forward and says, surely Nature, in the interests of universal conservation ought to have looked out for some medium of connection for the transformations of one energy to the forms of the other. Well, my dear Prudence, that is exactly what she did do when she admitted SENSATION into the organic realm. From that instant began the superorganic energy transformations, which have resulted in the inexpressibly marvelous mechanisms of the organs of sense, each endowed with an intelligence essentially its own. The vital point in this whole distinction is that the deeper sensations are still due to the direct *impressions* of the superorganic energy of that, which for the want of a better name, men have called a primal *instinct*. But oh the majesty of the amazing truth Prudence! From out that germ of Instinct has unfolded and evolved the truly psychic elements of our lives, sensations, feelings, emotions, with LOVE and its godlike INTUITIONS, all betokening the unmistakable *presence* in human life of an INDIVIDUAL Independent Intelligence of transcendent powers, practical prescience a possibility.

There is nothing more "scientifically" certain in all experience than the facts of sensation *impressions*, as the only *primal* facts,—these being the original source of all knowledge, reason,

intellect, and the fact of the existence of an *individual* something, (*not* a vague impersonal spirit or divinity), superior to reason and intellect, which, for the want of a better name, is commonly called Instinct, so that in the face of the overwhelming evidence of a mysterious, powerful force operative in daily life, (sometimes vaguely called Destiny or Luck), it is all the more surprising that there still remains such complete indifference to it and of course, consequent confusion of meanings in the minds of learned men, as cling to the use of the words, *mind*, *soul* and *instinct*,—especially when used indiscriminately as names of the ever present mysterious something, the *third party*—the *Individual Independent Intelligence*.

Undoubtedly the original Greek idea of the Psyche was something spiritual,—ideal, indeed the soul in that word was a personified deity, and so far unknowable. *Any* idea of the soul, it seems to me, is at least one remove further from “life” than instinct is. So when Emerson said “the soul knows all things,” he could with equal precision and fidelity to known facts have said, instinct knows all things. Indeed, as matter of fact that is practically, the very way he put it, unconsciously perhaps, when at another time he said, “follow your instinct to the end.” At least it goes to show that as profound a thinker as Emerson, used the words instinct and soul, somewhat indiscriminately. But under it all the main point comes out clear and distinct. Underlying the use of indiscriminate terms, *one idea* is perceivable, namely consciousness of the presence of a mysterious third party which has not yet been blessed with a distinctive name of its own,—this something, which I have referred to as the *Individual Independent Intelligence*. Not necessarily implying *direct* connection with *spirituality* or *divinity* as the soul does; and not so fleshy *mechanical* as instinct, but at the same time possessing powers very superior to mind—(as embodied in the words reason and intellect). Now, as it is plainly desirable to avoid the confusions that cluster about the old terms, let us therefore, leave the word soul as naming something which pertains essentially to the spiritual kingdom, *which I in no wise intend to invade in this little book*. And as for *instinct*, that specific word has been so long consigned, by habitual use, to the province of flesh and blood

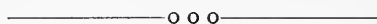
in its grosser lineaments we will let that stand also as it is — not but that there *are* nobler lineaments in blood and muscles and its instincts than ever dreamed of in the old litanies and philosophies, Prudence, but on the score of clearness. The name Individual Independent Intelligence is so formidable for size, a better will presently be found. For me, I would sooner say the Three I's (III) than resort to the term, "subliminal ego," which only rouses my ire. Whatever word is adopted it should suggest the nature of the power it signifies, which is absolutely the greatest force operating in the world today. Once get a clear idea of it and you see in it the arbiter of science. For it is itself the embodiment of that superorganic energy whose antecedent impacts—"impressions,"—are the first cause not only of all sense *perceptions*, but of those more obscure *intuitions* which first start up the organic machinery of the most powerful scientific imagination. As I have elsewhere said, science *without* imagination is a brain without blood. It is therefore the only limit science has in its grasp of laws for a true interpretation of Nature. It is superior to the natural laws of the inorganic world, only in that it knows "instinctively," as the saying is, how to *apply* any law instantaneously to any special case in hand, even including the almost incomprehensible law of Probabilities. What that leads to staggers the most powerful imagination to portray.

He who seeks a way to stand sponser for the miracles of the Bible, has here his strongest argument. If God told Moses how to make the Oracle, He did not subvert or supplant any part of a single one of His immutable laws. It was more economical — (and the law of least effort is the very law of all laws), to give Moses an *intuition* by which he saw a new way to *apply* existing forces.

Intuitions from the three I's (III) will lead infinitely further with the Oracle, than intellect has led with the wheel, stupendous as that achievement has been.

What the wheel has been to practical mechanics; what electricity is to time and space; what the telescope, the microscope, the camera,—in a word, what the lens has been to the whole body of physical science, the Oracle may be to *your* province of prescient Intelligence, Prudence. And when the universal CODE

is hit upon which shall bring man into working touch with his own Individual Independent Intelligence, (as sleep and abstraction do in their unconscious moments where the symbols are wordless impressions), happiness, prosperity and *knowledge* of immortality are assured.



I DESIRE to make my claim of *originality*, in the construction of the wonderful numerical square of the alphabet, which is the key to the Oracle and which illustrates in a most remarkable way, the so-called magic power of numbers, very explicit, because it happens that the Pythagorean idea of the number 365, referred to by Plato, was very beautifully illustrated in an article contributed to the "Monist," I think in 1896, under the title "Magic Squares," by Mr. C. A. Browne, Jr., in which this "mystic" number occupied the center cell. More particularly because in my arrangement of the square of the English Alphabet, 365 also occupies the center cell. My reason for being explicit and emphatic is in the fact that Mr. Browne's article has a prior publication. None the less, my arrangement is an absolutely original conception, and not in any sense or particular, a copy. I never came across the publication until long after my square was completed. Not in another single instance in the whole 729 cells, does a duplication of his numbers *happen*. Besides the two points of view are totally different; and my method of arrangement different. The inherent principles under discussion are radically different. This is shown in my chapter discussing the secret meaning of the enigmatical number plate so prominent in Durer's famous engraving "Melancolia." Also, inherent evidences of *purpose* are unmistakable. One appears as a remarkable curiosity of mathematics, aimless. The other has a definite, practical application to a distinct purpose.

Finally all followers of the Pythagorean idea seem to have founded their notions upon the too obvious but fallacious fact that there happens to be, as we say, 365 days in a year. But that is only approximate. It is inexact. It is not a mathematical

fact at all as everybody knows and as the necessary institution of leap year proves. From which simple fact my inference is that the *origin* of that mystic and significant number, was *not a time idea at all*.



IMAGINE two fine old gentlemen of the most unlimited wealth and power of the day, suddenly turned into a pair of old tattered, homeless and aimless derelicts, kicked out of gilded board rooms to wander unrecognized down Wall Street, or over the breezy links? You would thus get only a dim glimmer of what is actually happening to the two most illustrious vagabonds of *modern* science,—Luminiferous Ether and Molecular Theory. But science cannot go backward. Its fiat has gone forth, and the places that knew them shall know them no more forever. There is scarcely a doubt of that—at least in the mind of the devotees of the new views.


Do you ask what has worked this amazing change, Prudence? What could have caused this tremendous fall from power and glory? O just a few new discoveries of fact,—radio activities and the psycho-physiological *sensations of Time and Space* did it all. They demanded "*Relativity*." To attempt explanations in detail, even were I able to do so, would lead too far afield. The *fact* is all that concerns us to consider just now; the fact that we are standing on the threshold of tremendous revolutions in the scientific interpretation of nature; mainly by reason of new discoveries in biology and psychology.

And yet with such an unbridled license to run wild, it is not to be claimed that the fascinating little crystals in the Oracle are responsively "sentient" to the compelling influence of your Individual Independent Intelligence, Prudence. But simply that they certainly *do* obey laws which that superior intelligence *may* have the power to invoke on occasion. However, I want to repeat emphatically as disclaimer of any leaning towards mysticism, and as for occultism in the popular interpretation of that word, the very idea of it is hateful to me. May I not therefore reason-

ably hope that in expressing a belief that prescience and divination is a scientific possibility, it will not appear to your calm and sober judgment to be altogether void of sense and logic? That this little book will not appear the fantastic fabrication of a long-eared imagination, 'lean, thirsty, frisky and irresponsibly free from the halter of reason, turned loose, as it were, in the rich and boundless pasturage of "shadowland" where the lush-juiced loco springs indigenous?

'Tis TIME and SPACE glamour the pen
That would 'lucidate things for the children of men.

General Outline.

O far as I know, this little book approaches the tantalizing subject of so called *psychical communications*, from an entirely new point of view, namely from the realm of *individual sensations*. Heretofore the class of psychic phenomena which societies for psychical research, and independently, such noted scientists as Sir Wm. Crookes, Sir Oliver Lodge, Cæsar Lombroso, Professor Hyslop of Columbia College, and scores of other illustrious men of science, have investigated, have been what I would term briefly for purposes of comparison, *exterior* facts (provided they are facts—I don't know. I never investigated them. I never attended a seance in my life—and even if they are facts they are immaterial to the present point of view—except negatively), such as movements of objects without contact, *in the usual sense*, so called materializations, rappings and table tippings, levitation and all such *mediumistic* performances, inexplicable enough surely, for the motive power of which Sir Wm. Crookes, in the year 1871, invented the term *psychic force*. It is to be noted that almost invariably the *source* of this motive power has been finally tracked down into the lair of ghosts—to influences from disembodied spirits.

There is another class of psychic phenomena, a little less gross and vulgar, that is to say, not so deeply tainted with fraud and pretense, such as those so ably and splendidly investigated by the late William James of Harvard University, to which he gave the appellation “seership.” I mean clairvoyant visions and communications; clairvoyant automatic writings and the like. But even here again, one of the strongest, if not the prime motive in the *interpretation* of the facts crops out, and the search is for any

possible direct or indirect evidence there may be in it, of the persistence, or survival of a personality after death.

There is one striking characteristic which may be found in all these exhibitions of an inexplicable power, namely they are phenomena which are sensibly *shared in common* by a number of people at the time; as in a "circle" at a seance, or in clairvoyant sittings and trances in presence of company.

Now there is still another class of psychic phenomena, by far more subtle and significant of possibilities of more tremendous import to human life, than any of the foregoing, and which are entirely distinct from them in the simple characteristic that they are *not* shared by others, any more than one shares his own secret acts of memory with another. And, it is to be noted, that this characteristic is not abated by the amazing fact that the most secret act of memory leaves a door wide open to its detection, over the portal of which, modern medical science has inscribed its new word of white magic, *Psychanalysis*.

The class of facts to which I thus refer as distinctly individualistic and personal, is made up of the astounding mental acts in states of *abstraction*, prophetic dreams and visions, presentiments and intuitions, and specially those incontrovertible experiences of life as facts, namely acts performed in an incomprehensible way under the stress of sudden great emergencies, as when one says — and what is more common? — "I had no time to think, I acted *instinctively*." And this in a way that at the time appeared against reason and common sense, and which never could have been done in one's right senses, but strange as it may seem, it turns out that it was the only possible way the threatened life could have been saved from a horrible death.

On several occasions I myself have had exactly such experiences, one of which occurs to me now: I was working in a mine in Colorado, the old "Pewabic." I was in the "sump," at the extreme bottom of a deep and narrow shaft. I had rung the signal to hoist, and the heavy steel bucket loaded with rocks and ore had gone up the shaft, when suddenly without any physical warning and without any premonition of danger, (I had been long accustomed to such conditions,) I was seized with a perfect paroxysm of uncontrollable desire to get out

of the shaft. Something mechanically compelled me to raise my hands like a flash to the bottom edge of the "drift" above the sump, and give a sudden and prodigious display of strength and agility by which I sprang upward and into the drift, putting my candle out in the act. At that moment a puff of rushing wind and a piece of flying rock struck me, and something with a crashing blow struck the bottom of the shaft, with terrific force, exactly where an instant before, I had been standing. I relighted my candle and peered into the hole. There lay the big bucket I had just sent up. its load scattered all over the bottom of the shaft, the strong sides of the steel bucket bulged and split open and crumpled, showing that the great force of the blow would have reduced me to pulp had I remained there an instant longer.

Repairs were made and the work continued. Afterwards, after the wreck was cleared out, I had occasion to climb out of the sump to the drift, under normal circumstances. Then for the first time I realized the amazing nature and *effectiveness* of the power that had literally seized and thrown me bodily, in an instant, out of that death trap. For I found it a difficult and slow struggle clambering up the rough sides, with slips and failures and fresh starts before I succeeded in reaching the drift.

This experience I place in that class of psychic phenomena which are distinctly and essentially personal *sensations*. The facts of this class are far less open to doubt, as facts, than the grosser ones of the other classes of compounded psychic phenomena. For one reason, they are first hand, not complicated with *outside* personalities, and not shared or influenced by others. On the other hand, they are not of course open to experimentation by repetition.

Is it not then perfectly and legitimately conceivable that this Genius of a Superior Independent Intelligence latent in human life, but distinctly personal, call it *psychic force*, *instinct* or what you will, can, on occasions, in extreme perils of death and disaster, instantly seize control of all the machinery of memory, thought, and action, and the "vast intrinsic stores of lasting energies" stored in muscle cells, and direct that individual movement with superhuman skill, swiftness and power, *to a foreseen result?*

Is there any other conception that fits the facts so well?

From this position it is but a single logical step to conceive, that this same kindly unknown, Intelligence, *working within the individual*, can on occasion, cause an unconscious tremor of the wrist which holds the book, a twitch of a muscle here or there, which shall modify the operation of the laws of gravitation, attraction and repulsion, centrifugal and centripetal forces which you invoke when you set the little invisible balls in the box to rolling about, that they should be thus compelled to obey a guiding force in their resulting combinations within the visible luminous space, so that out of a large variety of classified answers to specific questions, that particular answer which is foreseen by the Independent Intelligence to be the one most nearly corresponding to the destined events, would be the one to be indicated by the appropriate combination thus unconsciously controlled.

So from a distinctly practical point of view this little book attacks two beautifully entrancing but more or less bewildering problems:

I.

First, the Oracle of Aaron's Breastplate; that unsolved mystery of ancient Hebrew literature, which has beckoned and baffled the scholars of all ages, of which Renan wrote, "It has never been ascertained by what mechanism the oracle was rendered;" and of which the general purport of what the encyclopedias say is that no satisfactory explanation of the mysterious Urim and Thummim of the Bible has yet been furnished.

II.

And second, the still more bafflingly elusive problem involved in the simple question, is practical prevision or divination a scientific possibility?

Not that I would make a pretense of being able to qualify in learning and logic to reach a scientific finality in either one or the other of the two problems. But I do claim to have shown conclusively herein, the most probable, beautiful, and only practical solution of the first one of the two, ever reached since the days of Moses and Aaron. The *demonstration* is convincing. But as for the more subtle problem involved in the operation of forces of a prescient nature, it is only fair to impose a condition,

namely, whoever does not believe in dreams or intuitions must pay one dollar extra, it being a clear case of contributory obtuseness, on his or her part, to things psychic, which in their nature are more real and convincing, or ought to be, than "things" themselves.

I find my excuse for speaking of myself in the following lines, in the fact that whoever attempts any popular explanation of certain classes of psychic phenomena, is almost invariably suspected of being in possession of a *spiritualistic* bias. In view of which it is only fair to my work to say at once, distinctly, that I am neither a "spiritualist," nor partisan adherent of any particular religious or philosophic creed, theory, or dogma whatsoever; (which is not saying that I am irreligious, for quite the contrary is the fact.) I am entitled to no "degree" and my name is without a "handle" at either end, (which by the way, I never spell in the middle, except when my dear old "Uncle" requires it on official documents, such as patents and the like.) I am not even a "professor" in any branch of "science," occult or otherwise, and never preached a sermon.

Yet lacking all these customary qualifications for "holding forth" upon such problems as prophetic dreams, visions, and prescience in general, I must confess, somewhat shamefacedly, that I feel perfectly assured that I shall not be left blushing, unseen any more, when the world begins beating its path to my door, for the *very best* supersensible-*impression*-mouse-trap which the modern world has yet seen. Any old rattle trap of a brain can "catch" sense *perceptions*. But I expect to show you that that is a very different thing. It is not so easy to lay hold of those impalpable impressions that are forever flirting with the superorganic energy of "life" and giving birth simultaneously to well formed impulses and *intuitions* of future events.

To drop all irrelevant levity of thought and unseemly flippancy of speech, it must be noted in all seriousness, that the underlying principles of the two problems are inextricably involved, enmeshed as it were, one within the other, even as the amazingly intricate and complex physical mechanisms within the various organs of sense, uniting in one organic whole in man, is one problem, — essentially for the biologist, — and the Love, dreams, and

aspirations shining through and irradiating the character of the individual is another, for the idealist and moralist.

So in regard to both, I say frankly that I do not claim that what I herein advance, *is so*: But that in reference to the Oracle particularly, *I* saw plainly exactly how I could put myself in Aaron's place, and *do* the thing that he did. In other words, I saw how it might have been done, and did it. The supreme merit of my doing, if it has any merit, lies in the fact that it conforms to, and exactly fits the Bible narrative, as well also kabalistic traditions and records, and the new "finds" in the field of philological science, rescued from the dust of the buried cities of the past. And this in the place of idle guesses, and vague and fantastic theories of the mysterious loss of all knowledge of the method or way, by which that most wonderful and effective oracle the world has ever seen, *was worked*.

Surely, to see the way to restore such a lost gem of ancient PSYCHOCRAFT, at the very beginning of a new age of idealism, which according to Dr. Munsterberg, is already upon us, is well worth while; but to "tell about it in a plain way!" That is harder yet; for how can a delving miner with a bent for mechanical problems, be expected to sling the good English that "literary fellers" put in books? Evidently the best way for me out of this second dilemma was to adopt the way of the primitive savage, namely the *ideographic*; which is not only the plainest way possible, but happily is the very language of the prescient power in life that shapes prophetic dreams and visions of future events. Therefore in discussing these things, symbols, diagrams, *personifications*, and the mysterious ratios and relations of *numbers* may well play a large part.

Often times a few tangible picturesque lines is something for the mind addressed to lay hold of, in the quick apprehension of a new idea; something it can grasp and refer back to, when an abstruse point gets foggy. A result which one, not a genius in phraseology, may labor in vain to accomplish with words alone. All the more when the true significance of the words in use have become lost in the mists of vagueness, or so overgrown with the mould of indifference, that they do not convey any sharp or distinct meaning at all, only a shapeless haze in the place of a clear idea. *Mind*, *Instinct* and *Soul* are such words.

Therein is my excuse for inventing the new *personification* of that Individual Independent Intelligence which surely accompanies, and on occasion displays its master hand in the critical affairs of life.

This Individual Independent Intelligence is that mysterious evasive something, which for the want of a better term is sometimes called *Instinct*. Its intensely human faculties and super-human powers, have long been known to be more marvelous in every day realities than anything that has ever had a fancied existence in the wildest of fiction or fairy lore. The best of it is this mysterious somebody, "Faculty," Good Angel or what not, is invariably man's nearest and dearest and truest friend. Whenever dire emergencies come, he it is who is the unfailing and unselfish hero. If you had the magic power to make a wish come true, he is in reality already in perfection of attributes, form and feature, all and more than your highest ideal and wildest hopes could in fancy picture *yourself* to be. For he is the *immediate* well spring of your best aspirations.

But he is often driven to despair, mingled with disgust at the sheer stupidity of mind, which perforce must stop to argue and test every idea presented, or failing that, becomes in the face of any sudden emergency demanding instant action, a rattled and collapsing coward. This magnificent hero rarely ever bothers with words, though he knows all *you ever* knew and never forgets a single one. He has two languages of his own, both symbolic and both entirely wordless. One is like the silent pictures in a scroll-like panorama; the other is expressed more directly yet, through *sensations*, feelings, impulse and emotions.

I have personified this incomparable Friend of man under the name of ELLU, which in the most ancient form of writing known is written thus:



It will be vain to search Webster's or the Century Dictionary for the meaning of the beautiful and musical name ELLU. According to the "Assyrian Dictionary," by Edwin Norris, Ph. D., Honorary Secretary of the Royal Asiatic Society of Great Britain,

Ireland, etc., etc., also "Concise Dictionary of the Assyrian Language," by W. Muss — Arnolt, of the University of Chicago, the word means *clear, clean, pure shining, bright; exalted, noble, etc.*

As matter of curiosity some might be interested to know how this word would be expressed in the *very latest* visible phonetics of a new subtle *unspoken* language. Such may refer to Francis Galton's "Human Faculty." By principles there laid down, ELLU would be expressed by *light pink shading through warm rose to a deep red.*

Precision in the meaning of words is all the more important, since formerly the provinces of *feelings, emotions, quality*, were utterly ignored as lying entirely outside the pale of science. But in this day — now note the strange fact well — human *sensations* have turned the most powerful and penetrating light that science has yet been able to avail herself of, in her efforts at making a true interpretation of physical nature. The former dogmatic prejudice and intolerance of purely psychological questions no longer "sullies the calm and noble lustre of unprepossession by which we so gladly discover the true inquirer."

The new attitude has already brought on convulsions among the older theories, but the new child of science "*Relativity*," is well born and lusty and will doubtless hold its own. Science did not fail to see her opportunity, and now psychology and physical science are traveling harmoniously, hand in hand together, in pursuit of the same common object, neither ashamed of the other's company.

Formerly, interpretations of all psychic phenomena were relegated either to the priestly province, or to sorcery and magic. In later days, the far seeing sage of Concord wrote the pregnant lines,—

"Magic, and all that it implies, is but a presentiment of the powers of science."

—ooo—

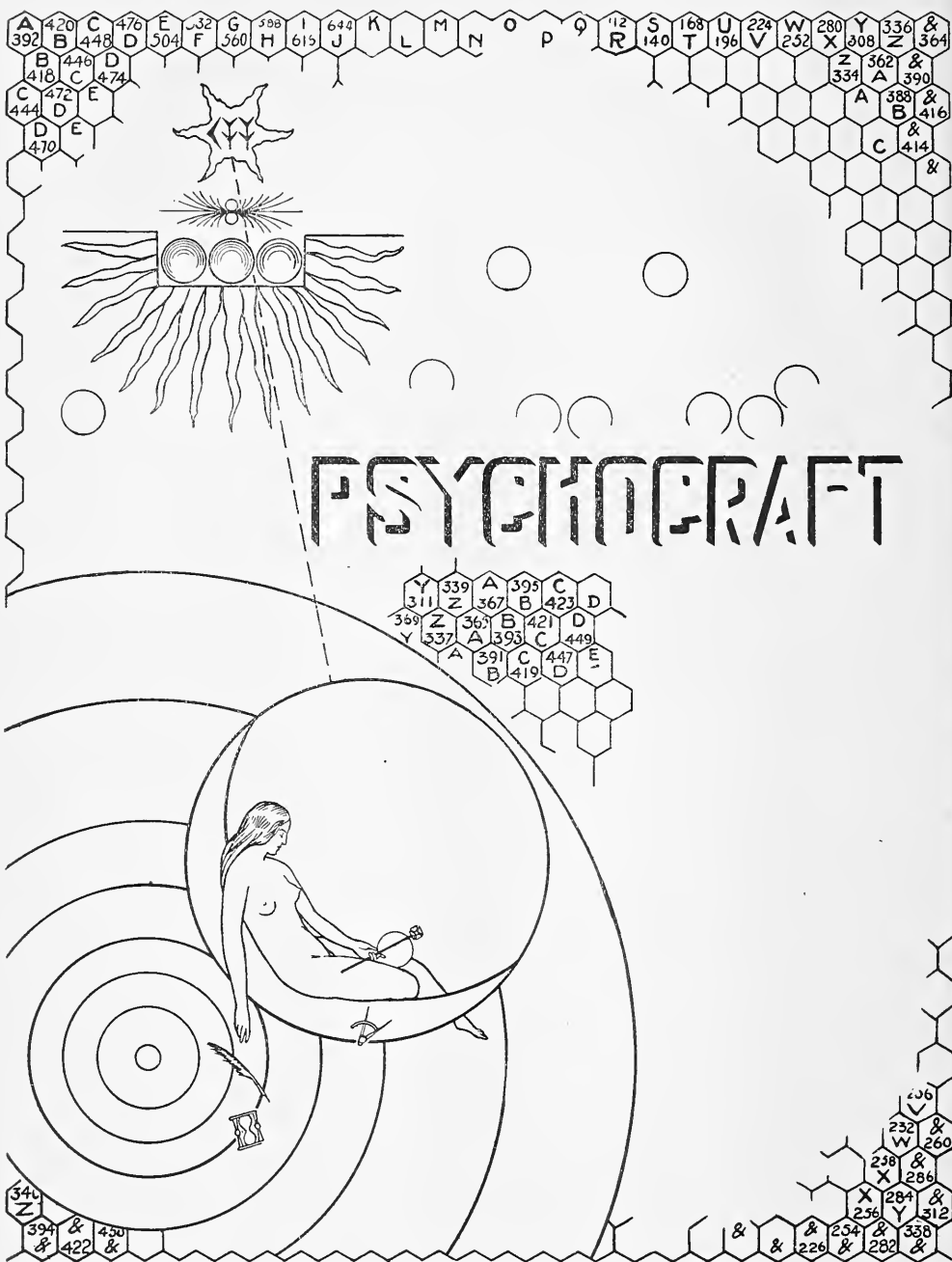
I REALIZE that it was comparatively easy to work out a probable solution of the oracle problem, and apply the principles involved to a practical result, and even improve upon the original.

But I realize also, that in the more subtle matter of prescience as a scientific possibility, how utterly inadequate are my meagre endowments for coping with a problem which no one mind can ever hope to solve, any more than the present state of science could have been the work of any one mind. All I can possibly hope to do is to render help, if only relatively infinitesimal. I am here reminded of what Carlyle once said concerning production. I do not recall the exact words but it was to the effect that if one could produce only the infinitesimal fraction of a product, let him "in the name of God *produce*."

As magic and all that it implies, was but a presentiment of the powers of science, so science with all that *it* implies, (including its newest implication *Relativity*),—is but a presentiment of the unsuspected powers of MIND. And there, in that word mind, is the very first thwarting of any plan of approach, in the inevitable fog that rolls in from the sea of tumultuous meanings of words. Tell me, Prudence, do you always mean just the same thing when you use that word? Or does the idea it conveys get all mixed up with *instinct*, *intellect* and *divinity*, for instance?


Therefore, in my use of the word mind herein, I define it as a product of *biologic* energy. I shall try to show the compelling importance of the difference that exists between sense *impressions* and sense *perceptions*; and that the origin of the human mind, (not instinct or divinity), was in the birth of sense *perception*. While an impression, (out of which a perception is made), most certainly *does* arise in the supersensual province of the *superorganic* energy of life — (and may *originate* — so far as anybody knows — in Divinity), but I stop short at the first suggestion of theology, and turn square about in order to keep in *direct touch* with the *mediating* organ of impressions; which surely must exist and which psychophysiological investigation is sure to explain sooner or later. At present we have only the inexplicable *facts* of psychic phenomena.

The Allegory of the Cover Design.



The Allegory of the Cover Design.

—ooo—

S a general principle, the inestimable help to the mind which visible lines, picturesque forms and diagrams give, enabling one to convey an idea of his own to another mind's quick grasp and apprehension, is well known, and is here availed of, with what aptness and success you alone must be the judge. The probable origin of successful intercommunication of ideas between man and man was the ideographic method. That method, and its successors, "Letters," have built up a vast mass of recorded and traditional "kenlore," the refinement or sublimated product of which is Philosophy and Science. In a most general way then, what the allegory would picture is:

The body of acquired knowledge;

The source of "light," itself emblematic of the medium of revelation of knowledge, (*but not in any sense theological*).

SENSATION Impressions,
Reason, formed of conscious perceptions.

Instinct, founded on unconscious or intuitional perceptions. (*Intuition is the mother of scientific imagination; science without imagination is a brain without blood.*)

} The human's methods
or
means of acquiring
knowledge.

The end and aim of science and philosophy is the interpretation of nature. In trying to interpret nature, science is led to believe that all its infinitely varied and complex phenomena are resolvable to the transformations of one ultimate principle. In the

course of its magnificently brilliant career it was finally led, in its pursuit of Nature, into the realm of psychophysiological investigations, and thereby finally succeeded in resolving *itself* into its own ultimate element, whatever Nature's might be. Its own ultimate element, beyond which it cannot go, is a SENSATION.

For me, one of the most profoundly impressive and exquisitely fine achievements in all science, was the subtle discovery that even the source of its own idea of *space*, that intangible, indefinable and incomprehensible principle in nature, was traced home to an INDEPENDENT sensation in the *muscle* mechanism of the eye. (The above display of adjectives, and this shouting the fact at you Prudence, with capitals and italics, may be pardoned to the overjoyed exuberance of feelings that take possession of me when I see the ancient nobility of blood and muscle thus coming to its own again, and the usurped prerogative of initiative by the so-called "noble element" of the Gray matter, being partially at least restored to the RED and rightful heir to the throne of "life").

So it has happened that the stupendous and bewilderingly complex phenomena of both lifeless nature and "life," organic and inorganic nature, has compelled at last, the universal acknowledgment of the existence of that power which ELLU personifies.

The nature of the Independent Intelligence thus personified, is not vague and misty, is not diffuse, indefinite and general, but is intensely personal and individualistic.

In the allegory this Independent Intelligence is represented by the six pointed star in the upper left hand corner of the page. Its flame shaped rays typify the reflecting power of that "primal light" which streams upon the field of thought, either under the intellectual effort of concentrated *attention*, or the more powerfully effective unconscious *abstraction*. This is the intelligent force which first endowed ectoderm and endoderm with the *Instinct* to vary incessantly, new combinations of units, in the building up of its countless millions of organic forms, through which their culmination is reached in the mind of man.

The *reasons* for adopting a *six* pointed star is beside the present purpose, suffice it to say that these reasons are in no sense astrological, occult, or mystic. But simply and plainly typical of a certain inherent nature of perfect adaptability, which

don't require "reason." What light for instance revealed to the bee the perfection of the hexagon, *for its purpose?*

It was *not* her purpose to reflect on the, to her unknowable, but beautiful fact that the *icosahedron* which is compacted of a score of tetrahedral units, reveals through its own complex outlines the inherent hexagon. So for me, when the far seeing philosopher announces the extremely important part played by FORM in the abstract, in the creating of ideas in the mind, and incidentally that within a perfect crystal sphere his mind's eye can also detect the beautiful outlines of a perfect *rhombicuboctahedron*, I am inclined to accept the fact without controversy, being reminded of the sagacious conclusion of our dear old friend Artemus Ward, of blessed memory, who, when told by a burly fighter that he could "lick him with one hand tied behind him," quickly replied, "But my dear friend, there is no occasion to go for the rope."

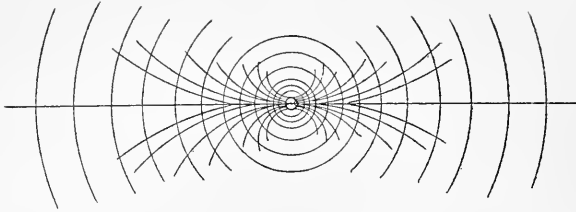
By *form* then, or otherwise, ELLU *illuminates* an original impression from the impact of some operation of a law of nature, or some hidden truth, for intuitional perception, which is the force that gives the first cue to scientific imagination, which in turn lights the further way to the reasoning faculty.

In the allegory, science occupies the background and its law and order characteristic is aptly represented by FORM, NUMBERS, LETTERS, which are the *exterior* symbols by which the great body of its acquired knowledge is recorded and transmitted from age to age.

This background is composed of detached glimpses of the two "Tablets of Destiny" for the Oracle of ELLU, which taken together as a whole, or single unit, form the wonderful chart that illustrates the operation of a "motor setting centre" of the brain, in acts of memory, described in the book with illustrations drawn by the author.

As the magic power of the "primal light," in the ancient idea, strangely foreshadowed the yet more wonderful and triumphant conquests of nature by the LENS of science, so those rays in the allegory, streaming from the Independent Intelligence of ELLU, symbolize the source of INTUITION and the scientific possibility of divination.

Time.



WHEN the human mind tries to swell itself up big enough to enclose boundless space, in its search for a symbol of Time, it but betrays its own kinship with bubbles. So let us think of time as *a breath* proceeding from the infinite point of the Present Moment, creating a never ending series of ever expanding bubbles; a new one forever incessantly budding from the very centre of the one which was new but the instant before. Thus the whole series for all time constitutes an *unfolding flow of pure duration*. Thus it may be conceived how the oldest, ever-flowing further away, may still forever remain in contact with the newest; while echo-like influences from the remotest, unconsciously co-ordinate with the generating breath out of the future, to shape the "event" of the Present Moment.

Directly under the flaming star is a diagrammatic symbol of Time. That mysterious indefinable element in human life which we arbitrarily divide into past, present and future, so the central idea in the diagram, expressed briefly, is that co-ordinating influences which are forever flowing from past (remembered) events, and from future events, (indicated by the featherless arrows from opposite directions), incessantly meet in a flux that comprises the complex events of the *present moment*,—here indicated by the tiny bubble, being pricked as it were, by the opposing arrow points. This little bubble of the present moment is thus shown as if forever in the act of breaking and yet forever being renewed. But such a bubble preconceives the necessary presence of a continuous, generating breath. The co-ordinating influences from past and future, are continuous, and the bubble may be likened to the resultant of two opposite forces,—that of

cohesion and expansion; cohesion of the exterior filmy shell and expansion of the generating breath. But it is always the breath that is the stronger, and though the bubble forever breaks, the breath is forever *expanding* into the *past*, as we say. But now we must tread warily, for surely there is trouble ahead for our symbol.

Two separate influences from opposite directions would seem to be best represented by two opposing breaths and two opposing bubbles, for if the future is forever expanding into the past, as we reason, then there must come a time when there would be no future. So in very truth that cannot be the way of it. We reason that these unfelt influences must be reciprocal, that the future can expand no more into the past, than the past can expand into the future,—so that the present moment would best be represented by the line of contact between *two* vast bubbles, so inconceivably vast that the contact of their peripheries would be represented by a straight line, yet with all our efforts we are still left perplexed, bewildered and disconcerted by this element of Time. There is only one way out of the difficulty.

If we could rid ourselves of this thralldom of absoluteness—yoked as we are to SENSATIONS and sense *perception*, reasoning, and by the power of *abstraction*, enter the “field of anyness,” as Dr. Paul Carus calls it, (as we surely do in deep sleep, and sometimes in the half waking state), we should see in truth that Time is only one big bubble after all, and the whole of it is now.

So the idea in our straight line in this symbol of Time, (appearing as two arrows approaching a point from opposite directions), the invisible influences flowing in from past and future events, cannot so well be symbolized by a line of contact between two infinitely large spheres, and may be more appropriately represented by imagining this line to be the impalpably thin edge of a transparent reflecting surface, (like that of still water where-in life and *relative* time began), which is forever cutting through the centre of the bubble of every succeeding present moment, at the instant of its simultaneous birth and death. . . . “Of the borealis race, gone ere you can point their place.” So in the symbol, the bubble’s *half reflection*, completes the sphere of the present moment; half in the past, half in the future.

There is thus beautifully typified at the same time the ineradicable principle of rights and lefts in nature—ineradicable for us, with our hemispherical mechanisms of *perception* in a double lobed brain, with its half guessed and amazing powers of prophetic reflection in states of abstraction.

When *impressions* began with the origin of life in the ocean, it was destined that *perceptions* should expand in a rarer medium. It is not therefore amiss for the spiritualists to imagine that the present life is but the ocean to another yet rarer medium into which the further expansion of the breath of the bubble of the present moment may go, to weave fairer forms. But when we mentally try to enter the labyrinthian realm of endless *Time*, with our double lobed brain, we must tread warily lest we drop inadvertantly the cue of a safe return to the rights and lefts of skull bound perceptions. There was graven over the portal of the temple of Isis in old Egypt these words:

"I am all that hath been, is, or ever shall be, and my veil hath no man yet lifted."

That strange enigma of the ancients, which has so awed the succeeding ages, is answered in the single word, *Time*. In this new day we see how modern science accepted the challenge of antiquity. How in solving some of the confounding mysteries wrapped up in the *velocity of light*, and its other manifold phenomena, science boldly lifted that inscrutable veil of *Time*, and thereby laid the foundation of the new science of "Relativity." With all the tremendous consequences to old theories, which the new word of science implies, we are, after all, but brought around again to another pregnant saying of antiquity. "Man is the measure of all things." That is to say, it is all a question of *sensation*.

Psychic Interpretation.

IN the allegory, *Light* from the symbol of ELLU pierces the bubble emblem of *Time*, as if co-ordinating the influences of past and future, to shine directly with concentrated power, upon the small spheres in the *aperture*, which with *their* diverging rays constitute the symbol of *intercommunication* between conscious

will, and the unconscious power of the Independent Intelligence, (ELLU), which shapes impulses, intuitions, dreams and visions.

These transparent colored spheres are most beautifully and logically adapted to furnish the psycho-physical means of a *possible* communication because the nearly frictionless units, invisible while in their little chamber, are absolutely free to intermingle into combination for the luminous aperture, uncontrolled by any possible physical act of the conscious will. Each combination of three out of a given number of units, all exactly alike, except as to color, has a certain meaning. For while they are free to fall into any possible combination of three, *no* combination can be made which will *not* stand for *one of the twenty-seven characters of the English alphabet*, (including the indefinite &). It is impossible for anyone to *willfully* determine beforehand, which particular one of the possible combinations shall appear in the luminous aperture. It is as near an illustration of pure chance or "destiny" as anything well can be, and yet the combinations are formed under the operations of infallible laws. There is no such thing as purposeless chance in the world.

Instinct and the Senses.

IT is now desirable to symbolize crudely with a few simple lines, an idea of the senses relatively to the provinces of Instinct and soul. As I said in the beginning, I am not a learned professor, but so far as I have read, the weakness of all modern philosophy seems to me to be in a rather sloppy apprehension, *and application* of its own distinctions between *Instinct* and *Reason*. I will give an example presently—(though of course, I know that if this falls under the eye of the Professor who wrote it, that he can easily make "pulp" of me and my notions,—which is not admitting that I am a block head either).

Philosophers say, truly of course, that sense perception is the source of all positive knowledge. It is shown that the birth of *mind* was in perception. Before that, all *intelligence* was merely brute instinct. Then arguments and deductions based upon sense perceptions begat Reason. And, as the tale goes, though

they ever after lived happily and begat a large family of "faculties," Reason remained supreme, the lordly, domineering, ever arrogant and testy head of the family—while instinct modestly hides away in the dark, (oh the shame of ingratitude)!

But here is the promised example: "Instinct is the more primitive and essential," says the Professor in discussing the development of *mind* and reason, "It is also the more narrow, condensed and specialized. Bound close to the preservative and perpetuative activities, and so restricted by the peculiar forms and needs of the organism it lacks adaptability and elasticity."

Whereas, if evolution and biology prove anything at all conclusively it is that *reason* is the faculty which is "bound" head and heels to sense perceptions, which in turn is bound and shackled to its own machinery for interpreting *impressions*. However, that is slightly aside from the present point. "The emergence," says the Professor, "of a human from the multitude of brute species is the most wonderful fact of biological history. . . . Man's humanness rests its case on the fact of his human mind. What above all is peculiar to that mind is its foresight; its faculty of abstracting the fixed and constant elements from the general evanescence of experience, and, by service of such abstractions, its power to predict the future. . . . It (instinct) is anchored so snugly to the concrete case that abstraction is impossible, and without abstraction there can be no freedom, no ideality.

"Thus the hugeness of the gap separating man as the reasoning animal is warranted by the nature of reason itself; for between instinct and reason is all the difference between blindness and seeing, between servile subjection to ephemeral events and spiritual freedom in the realm of ideas."

Now it is not only easy to show that the power of abstraction belongs more essentially to the province of Instinct, rather than to that of Reason, but that the Philosopher himself unconsciously admits this fact in a dozen places in the very same article from which I have quoted. For instance, "Of all the myriad idols which men have shaped them of their *imaginings* none stands forth so austere, so august, and so transcendantly elusive as truth." (The italics are mine.) Then out of this

fact the author shows how religions, the "long pageant of by-gone worships," sprung; how creed gave way to creed, symbol to symbol, pantheon to pantheon, "with kaleidoscopic ease of mutation," but how the *motive* remained unabated and unabashed through all change. "Surely this motive—able to withstand so oft-repeated overthrow of its dearest idols—must spring from an instinct deep-wrought in the human fibre; it must have a source in some perennial prepotency of man's disposition and its final reason in the laws of life and mind—aye, in the very essence of that Nature which has brought into being life and mind.

"And obviously there is, through all the change, a constant factor. It is the factor without which the development of a super-brute intelligence must have been forever impossible, for it is the key and support of the building human mind. This factor is belief in truth."

Where did he get that belief if not through Instinct? To show that that is exactly what the writer himself meant I quote again,—"But the philosopher has at least in his favor that he judges in accordance with instincts to which nature has indubitably given rise."

Finally, this masterly summing up,— "Our measure of the world is human science, and the measure of science is human intelligence,— in the last resort the power of imagination. For imagination is not alone the solace of life; it is also and above all else the faculty which has lifted man above the time-serving brute, making possible his insight into the natural history of what lies behind the screen of sensation. Imagination is the power whereby we discover truth; it is the instrument by means of which we rear the wonderful structure of human knowledge, our parable of reality. Its potency measures possible science; its flexibility determines mental evolution."

Now what I claim, and what I would labor to show is, that abstraction is made possible, and imagination gets its cue to a supersensible and hidden truth, only by coming directly in touch with what we call an intuition. And what is an intuition but a pregnant symbol in the superorganic code of that Independent Intelligence, which, to avoid the confusions of thought that

hang about the old word Instinct, I have herein personified as ELLU?

With this in mind it is at once seen how logical it is to give to Instinct in the allegory a wider realm than any, or all of the reason-building — senses.

The Symbol of the Senses.

IN the series of concentric circles in the lower left hand corner of the cover design, is symbolized the five senses, and other faculties, the interrelations of which, are more fully described in the scheme of the human faculties in the following chapter. But I would here repeat the warning that the source of much looseness of thought concerning psychic phenomena, arises from the indefinite and indiscriminate use of the terms sense *impression*, and sense *perception*; as well also the careless habit of using the words *mental* and *psychical* as always synonymous; which even the dictionaries seem to sanction. But this should be guarded against with what care is possible, in order that the fine and vital distinctions *that exist*, can be clearly apprehended. For instance, no one *really* thinks of his *soul* as the same thing as his *mind*, with which he secretly plots and plans and schemes to outdo or overreach his neighbor. Then why treat the words that stand for them as synonymous? The vital distinction that exists may be made quickly applicable by the following simple formula:

Impressions are psychical in their nature; *Perceptions* are mental in their nature. Impressions come from impacts of events and things in the outside world, and existed before "mind" was born, according to the science of biology. A sense impression is as infallible in its nature, as the law of gravitation. A sense perception is the more or less faulty interpretation of an impression, to the mind.

In every step of the organic process of the transformation of an antecedent superorganic energy impression, (which is psychical), to a sense perception in the brain, (which is mental), lurks the constant liability to a wrong interpretation of the antecedent impression and a consequent *possible* illusion or hallu-

cination. This vitiating taint of the judgments of reason is, therefore, never absolutely and wholly absent, though for all *practical* purposes, and for the uses of science a sense perception is fairly reliable.

Subtle as this distinction is, the bubble idea in the allegory lends itself beautifully to a symbolic representation of it, thus: The circle outline, as a whole, represents one of the "senses" as a concrete something. The convexity or *outside* of its curve represents Impressions and consciousness, while the concavity or *inside* of the curve, represents perception and memory. For further explanation of the idea see the scheme of the life faculties in the following chapter.

Instinct.

THE first six or smaller circles, are concentrically poised within the province of the Independent Intelligence of that superorganic energy, which we commonly call Instinct, which is here symbolized in the circle next to the outermost one of the soul or "spirit." Instinct has absolute dominion over all the unconscious processes of life. Over assimilation, nutrition, glandular secretions, circulation—in short over metabolism; as well also over those conditions which produce impulses; and is that which leads imagination into touch with INTUITION of future events and hidden truths. When the interplay of waking life and consciousness, and their inseparable adjunct, memory, with their joint product, intellect, demanded the "specific results" of sleep, sleep came; but only for those faculties which are *not* under the direct and special care of the Independent Intelligence of Instinct, *which never sleeps*.

The Pendulum of Sleep.

SLEEP is an organic function, unknown to the structureless germ and its instincts. The rhythmic and diurnal swing of this pendulum of sleep symbolizes a *purposive design* back of the phenomenon of sleep as a physical necessity. It is conceivable that the psychic purpose of sleep, (whatever physical needs it

may supply), is the conservation, within the organic mechanisms, of the godlike powers of that Independent Intelligence which were bestowed upon the original life germ; to keep that divine spark alive as it were, within the excessively perishable gray element of sense and intellect; which element as a physiological fact, dies instantly without blood, as well as being the first to succumb at somatic death from any cause.

It is also conceivable that the powers of the Independent Intelligence of sleepless Instinct, is most likely to be conserved in the blood, or other secretions. We know from experience and history that those powers may be reached, tapped as it were, by those able to assume the state of mental abstraction. The more perfectly that state approaches the natural abstraction of deep sleep, where consciousness of sense perceptions is shut off, the keener and surer will be the perception of hidden truths.

It is one of the most amazing facts of race experience, that men remain so stupidly and wilfully blind when by effort they might see. It is as Elihu the son of Barachel the Buzite, of the kindred of Ram, said to Job in his indignation,—

“For God speaketh once yea twice, yet man perceiveth it not. In a dream, in a vision of the night, when deep sleep falleth upon man, in slumberings upon the bed, then He openeth the ears of men and sealeth their instruction.”

Practically, the powers of abstraction, acquired or natural, enter the state in which an *impression* is interpreted direct, first hand, as it were, or as we say “instinctively,” or by virtue of an intuition, regardless of the slower workings and faulty processes of sense perception interpretation to the brain mechanisms used in reasoning.

Dr. Paul Carus well says “Abstraction is the sceptre with which man rules nature.” Then, if ever, is reached that state of perfect receptivity which shuts out all preconceived notions, and the “void of anyness” entered for the swift impress of new ideas, from the deft touch of your higher self, your own ELLU.

Sleep and Dreams.

THE most perfect state of mental abstraction known to the human mind is represented by the figure in the Pendulum of Sleep. The main stumbling blocks to reason namely, time and space, do not exist in that state. Their emblems, the hour glass and dividers are seen falling from the relaxed grasp of consciousness. But there are other stumbling blocks to the conveyance to "mortal" mind of conceptions of abstruse and obscure truths, namely Reason and Speech; so their emblem also, the pen, has slipped from senseless grasp. In their place ELLU has tossed *receptivity* into the lap of the sleeper. —This quality of receptivity is what Dr. Carus has aptly named the field or void of "any-ness;" which has been emptied by abstraction of all preconceived ideas and prejudices, and upon which play the impacts from without, — *direct impressions* from the province of super-organic energy. The automatic attempts by brain mechanisms of *perception* produce the symbolisms of visions and dreams,—these form the wordless language of intuitions and premonitions.

Human experience has piled up mountains of evidence that such symbolisms are often indubitably *purposive*, and are therefore susceptible of interpretation, could only the right prearrangement of a reciprocal code between language and impression, be hit upon. Whether or not man ever finds a practical way to do it, makes no sort of difference to the principle of its conceivableness as a scientific possibility.

I cannot explain how and why the X ray enables my eye to "see," and my brain to "perceive," that which without the X ray, would remain absolutely hidden from my sight, in any *other* kind of light known to science. But the *fact* of it is not a whit more scientifically certain than the facts of prophetic dreams and intuitions which make use of the language of psychic symbolism.

For Reason and Speech to a spirit free,
Are sandals of lead on a swimmer at sea.
And Time and Space glamour the pen
That would 'lucidate things for the children of men.

ooo

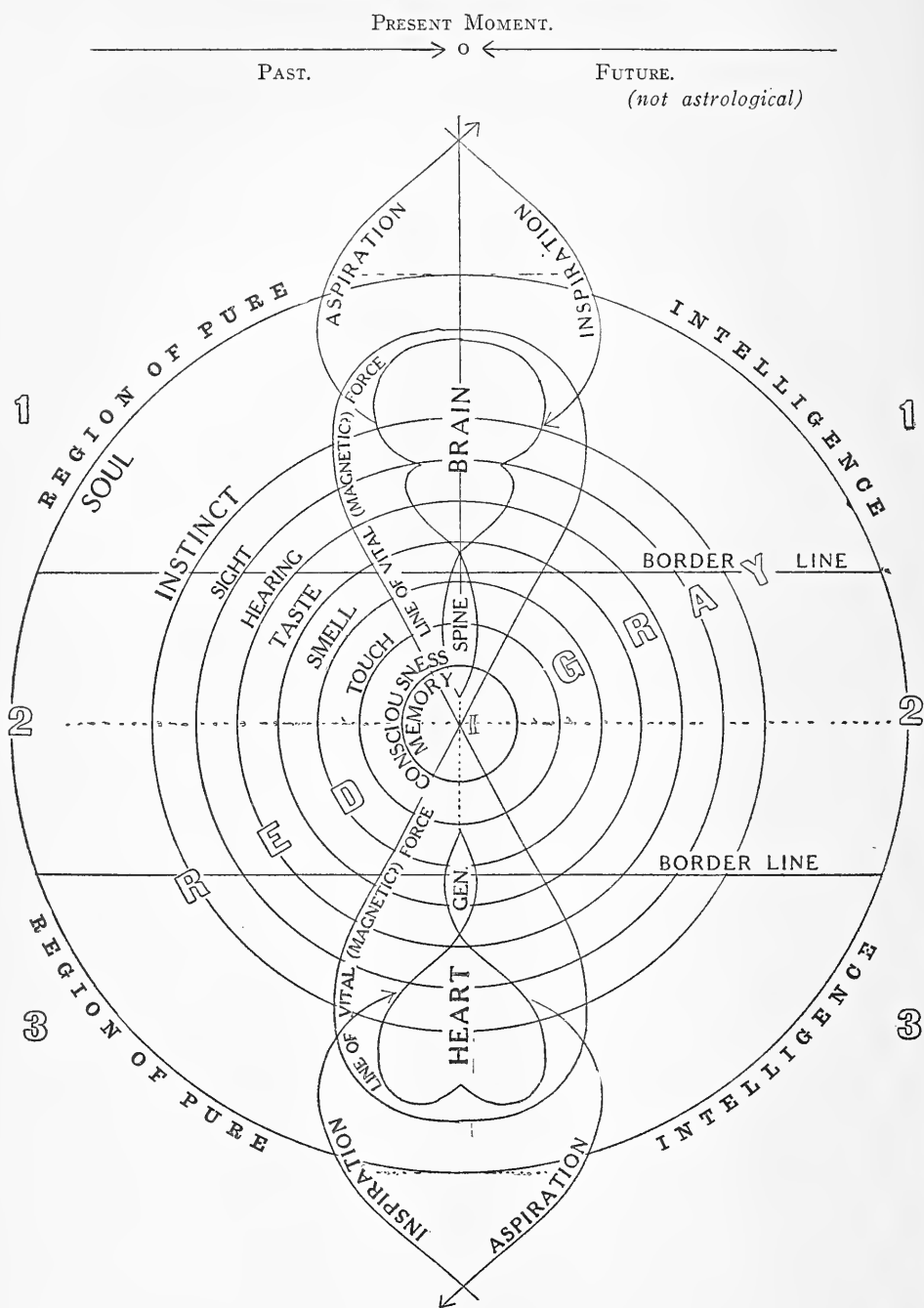
SO far as the allegory goes, it only remains to note the simple fact that the shadow letters in the word, which gives a title to the book, very prettily symbolize the art of *Psychocraft*, as belonging essentially to the realm of law and order, and not to the province of mysticism. The letters though incomplete to appearance, are formed strictly according to the laws of vision; according to point of view, perspective, direction or source of light, etc. For instance if a tombstone is photographed, the picture would not show the letters cut upon it, in *complete* outline. Only the high lights print, yet the mind finds no difficulty in reading at once the whole inscription.

Indeed, according to physiological authorities, no *problem* as to the identity of letter thus formed ever reaches the *mind* at all. The process is not mental but psychical. It is settled unerringly by the Independent Intelligence which has imparted to the organ of vision itself, a power of judgment of its own. See Mach's *Analysis of the sensations*.


Everywhere, evidence of the activities of superior Individual Independent Intelligence is simply overwhelming when once the mind is opened to receive it.

Scheme of Human Life Faculties.

Scheme of Human Life Faculties.



Charting Human Life Faculties.

S a general rule, the purpose of charts, maps, diagrams, agrammatic tabulations, and the like, by giving graphically a bird's-eye view, as it were, of a concrete thing as a whole, is to help the mind visualize and hold the relative connections of the parts thereof. But this is far from being the whole of the present matter. While it is important for the clear apprehension of a thing as a concrete whole, to apprehend also the *interrelations* of its parts, as a general fact, without going into details, the vital necessity is to present clearly, in the same general way, the fact of their *differences*. Because back of these differences may lie hidden the *ultimate purpose* of the thing as a whole. The direct purpose of a part (a sense), may be quite another thing. It is likely that the question, "Is life worth living" would not arise in those cases where the *purpose* of life is clearly present to the mind.

For myself, I was seeking a basis for a reasonable belief in a detail of the *purpose*, viz., the scientific possibility of pre-science as a human faculty. I do not know what particular circumstances led the great scientist, Ernst Haeckel, to the logic of immortality, (spiritual persistence or indestructibility of personality), but when I had succeeded in locating to my own satisfaction, the *known* "faculties" each in its own, or right subdivision of the two provinces of life (mental and psychical), that simple little circumstance of logical classification made immortality apparent as an inevitable certainty. And this without necessarily involving any particular theological theory. Best of all, my tabulated arrangement, above referred to and shown in another chapter, was the only classification I have ever seen

that brings about harmonious agreement among all the otherwise "inexplicable" phenomena we hear so much about.

Now mind, considered as the reasoning faculty, or intellect, it must be remembered, is herein regarded as something absolutely different and separate from the "psychic" or intuitive faculties. These two widely different faculties, as hereafter shown, stand at the head of *two distinct provinces* of life. The mind, as reason, is necessarily conditioned in time and *space* — (as the two phases of physical *motion*); while the psychic, or intuitional faculty is not in the least so conditioned, (not on its *own* account), but is absolutely independent of those conditions, which are so necessary to the orderly cerebration, or proper working of the mechanisms of the brain organisms of the mind. Being independent of, and superior to the laws of those mechanisms of mind, it can, and indubitably does *help* the mind in its use of them, — on occasion. Thus it became necessary to consider "life" experience as divided into two distinct provinces, separate one from the other, but at the same time possessing potentialities of interrelational products.

In this scheme the dominion of the mind does not extend beyond the circles of the senses, because strictly considered, *mind* is entirely dependent upon *sensation* for its perceptions, and is therefore conditioned in Time and Space. While the two outer circles in the diagram indicate faculties superior to sensations and so are not thus conditioned. But these superior faculties are in no wise precluded from influencing the sensation mechanisms of the mind, whenever they are left free by the mind to be influenced. The very best proof that they are thus left free a good part of the time, is furnished in the commonest phenomena of life, namely in sleep and dreams. In sleep the mind is quiescent. A perfect state of abstraction from sense perceptions exists. Even memory then plays only an incidental and unimportant part. Because it is then that the "void of anyness" is produced. It is then that the higher powers of life, (the III), can use the mind mechanisms for producing impressions *in their own way*; and *their own way* is not the mind's way, which is conditioned in time and space. But sleep removes the conditions, temporarily, and mind and the higher intelligence

may then meet. Dreams prove this. Mind is further conditioned by language, so the *impression* made by the higher intelligence, which is free from *all* these conditions, is symbolic.

It is known that a dream embracing events extending over long periods (as the mind interprets it), occupies in reality, in producing that astonishingly complex panorama in its play upon the brain mechanism, an incredible short flash of time. Addison relates a typical instance in the Spectator: "The angel Gabriel took Mohammed out of his bed one morning to give him a sight of all things in the seven heavens, in paradise and in hell, which the prophet took a distant view of, and after having held ninety thousand conferences with God, was brought back again to his bed. All this was transacted in so small a space of time that Mohammed on his return, found his bed still warm and snatched up an earthen pitcher, which was thrown over at the very instant that the angel Gabriel carried him away, *before the water was all spilt.*"

The two great Scotch physicians, Abercrombie and Gregory recorded many similar instances, one of which is quoted by Dr. Dendy as follows: (*Philosophy of Mystery*, p. 239). "A gentleman dreamed that he had enlisted as a soldier; that he had joined his regiment; that he had deserted; was apprehended and carried back to his regiment; that he was tried by a court-martial, condemned to be shot and was led out for execution. At the moment of the completion of these ceremonies, the guns of the platoon were fired, *and at the report he awoke.* It was clear that a loud noise in the adjoining room, (a slamming door), had both *produced* the dream, and almost *the same instant*, awoke the dreamer."

Although the actual operation of the mind in ratiocination, — (as a process not as a product of reasoning), are comparatively slow, yet the prodigality of nature here as elsewhere, has rendered its possible scope altogether incomprehensible, by the enormous number of its "soul cell" units in the brain, (which a German biologist has estimated at six hundred million). The possible thought combinations thus provided for, are beyond all human thinking. Any effort to compass this fact is benumbing to the sense bound intellect. But when the higher Independent Intelli-

gence of the other self (the III), finds its opportunity in sleep, the *mind* being then quiescent and the machinery at rest, it may play upon that waiting organism and with deft fingers, through new combinations of its cells, produce the first *impression* of a truth, which never had existed in memory, and which the mind had sought in vain to grasp. The result is always the same, whether it is the revival of an old impression, lost from memory, or an entirely new combination, namely, it is a *symbolic* representation—a dream picture. But it is often enough to give the reasoning mind its cue, which it may take up and work out in its own way, whenever it is *wise* enough to take the hint.

A most beautiful illustration of the truth of this is related in another place, the dream of Professor Agassiz, as related by his widow, which is only one among untold thousands of similar instances in the experience of mankind.

Subtle proof that the mind has nothing to do in the *production* of a certain class of impression, is not wanting. It may be found in the innumerable instances known to medical history, where after long suspension of the mind faculties, in catalepsy, and after shocks, injuries and the like, the machinery of life functions goes on uninterruptedly; and when the faculties are finally awakened, they begin exactly where they left off when the shock came.

Again, under normal conditions, to illustrate the idea that the mind has no power of reflection or judgment in a dream, Dr. Samuel Johnson relates that he once had a contest of wit with an antagonist in a dream, and found himself confounded, depressed and mortified that his antagonist always got the better of him. But when he reflected upon the matter on waking, he said, “Had not my *judgment* failed me, I should have seen that the wit of this supposed antagonist, by whose superiority I felt depressed, was as much furnished *by me*, as that which I thought I had been uttering in my own (conscious) character.” (The italics are mine.

The wise doctor did not seem to catch the cue of his dream, that this was a revelation to him of the existence of his own ELLU, as one in his composite human trinity—III.

It is not contemplated, however, to portray this separation of the mental and psychical in the present diagram, or chart of

life faculties. This chart is more particularly designed to show mutual relations of the faculties of one of the two provinces only, namely those faculties which are essentially organic, as the senses for instance, and faculties directly dependent upon them. This chart therefore indicates, incidentally only, the presence of the faculties or properties of the other province, instinct and intuitions, but even here, as *outside* the province of the senses, and the soul outside of all.

In this way, the various diagrams used herein, have certain interrelations, and in a way harmonize with the general idea. Thus, while the present diagram is intended to fix symbolically an idea of the general interrelations of the senses, consciousness and memory, in the *individual*, by a series of bubble spheres poised with infinite delicacy of adjustment about a common centre, (as in life),—another diagram, (in the next chapter), will illustrate, (by means of the *path traced* by a sphere conceived as rolling), the general idea of the principle of *onwardness* in the totality of the life experience of the race, as offsetting the horrible monotony of a purposeless repetition of endless “cycles” of existence. While a final chart or tabulated arrangement of the *specific results* of the individual faculties of the two separate provinces of life, placed side by side, reveals the tremendous import and significance of the presence of that *instinctive faith* in the persistence of a personality, (which is well nigh universal), such as I could obtain in no other way. In short, it was by the aid of these diagrams that I worked out, to my own satisfaction at least, the most convincing proof of a scientific basis for a belief in the human faculty of prescience and consequently for immortality — (or rather the converse of this way of putting it).

Explanation of the Chart.

TERRESTRIAL life had its beginning. The symbol of the environment, that is, the symbol of the epoch of a *lifeless* material world, may well be the symbol of water, which is usually a wavy line. Life began in the ocean, says science. Whatever or wherever its real or ultimate origin may have been, it is doubtless true that in after ages of evolution every creature that ever

lived and tried to think, looked *upward*,—to the sky for its source, as we do, *instinctively*, even to this day. Imagine then a lifeless expanse of water.

Thunder, lightning and a drop of rain! Behold a tiny half bubble for one little instant riding lightly on the face of the deep where the rain drop fell. What symbol possesses more fitness in representing the evanescence of that *individual* life which was so mysteriously shaping itself down below, in the salty depths of the warm virgin sea, — than a bubble does?

Oh symbol of earth life, iridescent you tell,
On the face of the deep where the raindrops fell.
Born of the ocean's own spirit and dew,
By the hymen of sky when the world was new.

So for the foundation of our chart of life faculties, in place of the conventional wavy line a dotted horizontal line represents the locus of the origin of life. On this line then we make a dot, representing the spot where the bubble spent its energy, which as the centre of the chart will also symbolize the centre of all life's activities, as well as the starting of the germ of life, that mysterious something which defies all analysis. According to Wiesmann's theory, the life germ itself was never endowed with the property of death. The *substance* in which that germ first exhibits the phenomenon of "life," is colorless and structureless, (sarcode or protoplasm.)

"For the whole living world, then," says Huxley, "it results that the morphological unit—the primary and fundamental form of life — is merely an individual mass of protoplasm in which no further structure is discernible."

And Herbert Spencer says, "the germ out of which a human being is evolved, differs in no visible respect from the germ out of which every animal and every plant is evolved."

So the original "life" cell was a mere speck of protoplasm, which in the course of time, obeying its inherent Instinct, produced certain variations within itself and thus evolved that wonder working pair which science so happily named, ectoderm and endoderm.

The story is one of transcendent interest. It relates how that immortal pair produced by their united labors, every living thing

under the sun. All the myriad form in endless variety of results in specialization and individualization: Their simple tools a series of infinitesimal bubbles filled with explosive secretions formed within themselves.

It relates how the identical process now in use, and, at this moment going on within your own body is called by the physiologists, *metabolism*. How each successive step in their insignificant labors, taken as a whole form a general progress upward as grand in its nature as the stately sweep of comets or the onward march of westward going stars — never once deviating a hair breadth from the laws of their activities, or losing for the fraction of a second through untold millions of years, *their identity*.

It relates how as they pushed their pet enterprise of animal building out into wider and ever branching intricacies of differentiated structures, it became necessary to *connect* distant members of the same structure in order to insure harmonious and correlated action. How a special tissue system was slowly but surely built up to secure that end. Then it was that nerves began. For there is not the slightest trace discernable of anything like a nerve in the structure of the protoplasm cell. By differencing their own cells the busy ambitious pair worked out the structure of the special connective tissue required.

Ganglionic centres followed. The brain was an afterthought. Life began without nerves or brain.

How utterly impossible, and how futile the attempt even, to grasp a comprehension of the full sweep of that upward progress through ascending animal series from the protoplasmic germ, up through untold millions of years to the majestic beauty of the tree of human thought in the full bloom of this twentieth century's lordly and arrogant intellectuality!

In the wonder of all this, let us not miss the point, as matter of physical fact, to this very day, and deeply significant it is, the cell of human muscle substance partakes so largely of the specific properties of the original cell of protoplasm, that the latest physiologies refer to muscle substance as "muscle protoplasm."

In this present scheme of life faculties, for the sake of brevity and convenience, I symbolize the two great forces in life, brawn

and brain, in the simple words *red* and *gray*. With these rapid general considerations, we can now proceed with the details of the chart. With the germ dot on the horizontal (water symbol) line for a centre, I draw a small half circle over it. This represents the bubble symbol of life's start. The burnished surface of still water reflects like a mirror, — the half bubble is repeated under the line and a perfect sphere results. So this first circle about the germ life centre, may stand as the symbol of personality, identity, or individuality.

If shown in colors, all above the line would be gray, but with red rays shooting up through it, and all below the line red, with gray rays similarly through it.

Also the first little circle symbolizes the life principle. But with life came Instinct and "consciousness in some shape must have been present at the very origin of things," said James. And with it its well nigh inseparable mate, memory. Whether a *soul* was there then we do not know. But we *do* know Instinct — *as* an instrument of the Independent Intelligence of superorganic energy, *must* have been there. But the soul in potentiality was *somewhere*, so to represent it in the scheme I draw a large *outer* circle, which has for its prototype the dome of the sky. Then next within that another circle for *Instinct*.

To represent the five senses in the scheme, I draw a series of five circles between the circle of Instinct and the circle of personality, using the germ dot for a common centre. These are marked in the order of their probable occurrence, — touch smell, taste, hearing, sight. These circles are all to be imagined as the transparent outlines of so many bubbles, all poised concentrically within the imperishable *outermost* sphere of the soul.

It will be noticed that this reverses, as it should reverse the curious persistence of the fallacious and misleading idea expressed by the words *inner life* as applied to the *soul's activities*. It seems to have been an unquestioned dictum, originating, I know not where, that the soul is the inner and the body the outer aspect of human life. A dictum that humanity in general, and even modern psychologists continue to follow blindly, thoughtlessly. Nothing could possibly be more misleading psychologically. You must rid your mind of that fallacy

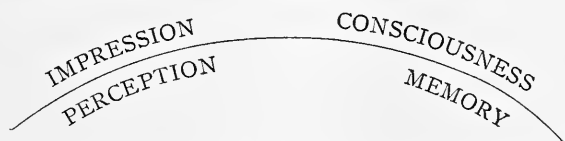
before its eye will perceive the inherent aptness and beauty of the Bubble Chart.

If the body is merely the temporarily *compressed*, solidified aspect of a life immeasurably more expansive and wider in its destinies, then why in the name of common sense call the body its *outer* aspect?

The soul itself has no delusions. It *knows* all things. Everybody knows, down in his heart of hearts that the actually inner (hidden) life is a pack of foul lies, of which the spotless and *unsoilable* soul would sicken in shame, (were that possible).

The faculties of consciousness and memory, as well as *impression* and *perception*, cannot well be represented by separate lines or symbols of their own in the diagram, for reasons which will presently appear. Yet the *presence* of these faculties, as inherent properties of that "experience" which constitutes the fund of human knowledge, is most aptly and beautifully represented in the nature of the curved line that forms the circles of the senses; namely its inner and its outer aspect. Its convexity and its concavity.

The *outer* side or aspect of every circle in the scheme represents, therefore, both *Impressions* — (as impact from the outer world), and *Consciousness* (as "awareness" of the outside world). While similarly the inner side of every circle drawn represents *sense perceptions*, — (as interpretations of the impressions) and *memory*, — (as a record of states of consciousness). To avoid confusing repetitions of the four long words, *impression*, *consciousness*, *perception*, *memory*, they are omitted from the diagram but to fix these in the mind, the two first words must be supplied mentally to the *convexity* of every circle: And likewise the two last, to the *concavity* of every circle, thus,—



If so rigid a thing as a great telescope with solid lens centered immovably in metal, mounted in a solitary house on the top of a distant mountain of primitive rock will still tremble so

in sympathy with its earth relations, that a star seen through it will appear to dance about in the sky, how inconceivably and perpetually more out of focus would be a set of elastic lenses (the bubble symbols of the senses), hanging as free pendants within the very heart and brain of the teeming city of LIFE, upon the elastic *lien* of time forever trembling and dancing with the jars of *specific results*—the eventuations of the swift changing *Present Moment!*

Is it any wonder that a perfect mental equilibrium is the rarest of all human virtues and could impart Christ-like powers of prescience? Is it any wonder that the great modern scholar should say, even of mathematics, we never *know* whether its deductions are true? The appropriateness of bubbles thus clustered about a common circle to illustrate the relations of the senses to consciousness, is at once apparent. No words can well exaggerate the wondrous elasticity and reciprocal inter-conformability of the various faculties represented by bubbles thus poised. And nothing else visible to all alike as actual substance, is so delicately responsive, so incessantly vibrant and elastic—trembling in agitation at every little jar, till it breaks, as a bubble. Your consciousness is the eye of your universe. But it is poised so gently, hung on its invisible liens so lightly and so delicately moored at the common center of those flexible and responsively vibrant bubble spheres of the senses, that a little tap on the head, a wink of sleep, a little alcohol or chloral or poppy—and almost instantly that eye of consciousness is tight shut: Reason is temporarily lost, dazzled and confused by the exquisite confusion of vibrations set up in the concentric spheres of the senses.

Memory.

AS previously hinted, for that familiar but marvelous faculty of memory there is no *single* representation possible. Simply because, as Ribot says in *Les maladies de la mémoire*, 1901, p. 11, "There is not one memory, but memories; there is not one seat of memory, but particular seats for each particular memory."

And even if we were to confine ourselves to the conclusions of the champions of the Gray alone, there would be over six hundred million seats possible as that is the estimated number of cells in the brain. But according to the very latest theories of biological science — see Eugenio Rignano's book, 1907, so copiously quoted by Professor Francis Darwin in his presidential address, to the British Associations for the advancement of Science, August, 1908, as noted in a recent issue of the *Monist*, there are *thousands of millions* of organic cells in the human body, *each capable of becoming the seat of a specific memory*.

Nevertheless, representation in the diagram, perplexing and impracticable as it may seem at superficial glance, is really feasible, simple and logical; when we consider that every act of memory, (I refer now only to the period of conscious life without reference to that bewildering likeness that exists between ontogeny — something a little broader than heredity, and memory, in conscious life at least), was stimulated by some impression of some one or more of the senses; so we may say broadly, since every curve although a distinct and separate actuality of itself, has two sides, two opposite aspects whose natures are totally different one from the other, — so we may say figuratively, that *Memory is appropriately represented in the diagram by the concavity of each and every convexity therein*.

It is among the very latest ideas in biological science, that the "memory trace" is at last located in a specific substance that is deposited by vital processes in an organic cell, especially in that of the brain: That this substance has the property of giving back upon proper stimulation, as an electric accumulator does by reaction, the exact "specific current" that just produced it, and thus illuminate for consciousness the precise picture first impressed.

And that as a natural consequence, the deposit of a memory substance anywhere in an organism being dependent upon *nutrition*, the oftener you stimulate the current of any particular memory image, the brighter and clearer it becomes. At all events, this theory fits more of the puzzling phenomena of memory than any other heretofore devised by human ingenuity.

It is assumed that any vital current, i. e., one not necessarily confined to a brain cell, or any other strictly nervous current, but even a cytoplasmic impulse, is capable of depositing the specific substance whose reaction produces the mnemonic faculty.

"The mechanism necessary," says Basil C. H. Harvey, of the University of Chicago, in reviewing Rignano's book, in the *Monist* for July, 1909 — "for the general exercise of a mnemonic faculty being present throughout the organism, it is interesting to note that Hering finds the mnemonic faculty itself present, as shown in his book— . .

"Ribot also states that *'memory is essentially a biological fact, accidentally a psychological one.'* The possession by living matter in general of a mnemonic faculty should throw some light upon many of its activities and especially upon those which resemble memory. . .

"The germ," wrote Claude Bernard, 'seems to preserve the memory of the organism from which it proceeds. Haeckel attributes development to the mnemonic quality of his plastidules. . . Cope held that ontogeny is called forth by the unconscious memory of phylogeny. Naegeli and, in some places, Hertwig himself, attributes to the idioplasm the faculty of remembering, so to speak, the successive phylogenetic stages through which it had gradually passed."

As Rignano says, "The phenomenon of memory can serve neither as an explanation of the phenomenon of development nor of the vital phenomena in general, because it constitutes itself a phenomenon more special and complex than those it was summoned to explain."

This new theory of memory based upon the deposit of a specific memory substance within a cell, is all the more plausible because the close dependence of memory upon the nutritive processes, is a universally accepted scientific fact. Nutrition alone can provide the substance, and the more a memory is recalled, the stronger and clearer it becomes, because exercise brings nutrition in its train.

In a word, science itself places memory under the dominion of whatever unconscious faculty it is that governs assimilation and nutrition.

But it would be a very insidious mistake to consider memory, on that account, as belonging exclusively to the psychical side of life, as nutrition does. It is, as Ribot says, essentially a biological fact. Memory is therefore listed among the "specific results" of biologic energy, in the province with mind, and not among those of the superorganic energy. (See Tabulation.)

Having located Identity, Consciousness, Memory, Instinct, the five senses and the soul, by a simple series of eight concentric circles, and denoted the respective dominions of the Red and the Gray elements of life, it now remains to locate and symbolize with curves and straight lines, certain other activities and co-ordinating forces, or influences, or sympathies, that flow respectively from heart and brain—(appropriate symbols of Red or Gray), through a common center.

And then to divide the whole into three distinct ZONES of activities, viz.: The zone of the Intellect; the zone of Science (specific results); and the zone of the Instinct. These zones on the cut are numbered 1, 2, 3, and signify,—

1. This is the zone of intellectuality, involving unknown but knowable laws. The zone of illusions and hallucinations; of materializations, ghosts, levitations, etc., etc.

2. This is the zone of science; of the known laws of sequential causation; of materialism and the utilities of natural forces.

3. This is the zone of the INTUITIONS: of prescience, involving both known and unknown but knowable laws of vitality, nutrition, love, generation, heredity, etc., etc.

There is much confusion of thought resulting from attributing in a vague way, all "psychic phenomena" to one and the same source or "force"—as if all were governed by the same law. This is misleading in the extreme. There is not *one* "border line" and one "shadow land" between commonplace every-day life experiences and the extraordinary occurrences of psychic phenomena, but *four*, at least.

Across the border line of one zone may be the shadow land of the other. The zone of materializations, ghosts, raps, levitations, etc., *is as far removed as possible from the zone of intuitional prescience.*

It is to be supposed that the beautiful imperishable outer bubble of all, representing the Soul, which contains all the other bubble faculties nested successively within, is itself enveloped, submerged, bathed on all sides by the illimitable ocean of pure Intelligence; the region of the Ultimate Cause, the Great Unconscious, the Unknowable.

As Aristotle said yesterday, "The five senses just enumerated — sight, hearing, smell, taste, touch — would seem to comprise all our perceptive faculties and to leave no further *sense* to be explained." (de Anima.)

Poised above the outer circle, the mind's eye discerns a single luminous point which represents the Present Moment or Opportunity. It twinkles like a spark that is incessantly put out and as incessantly relighted.

In the next chapter, it is supposed to accompany the *rolling* sphere of life in its onward progress, as if affixed thereto, as indeed it is, by its invisible LIEN. I say rolling, because thereby it illustrates an *onward* progress. That is to say, life is not to be supposed as either floating aimlessly like a bubble in space, or as whirling in a dizzy monotony of never ending cycles of rebirth to no ultimate purpose.

Further, it is to be supposed that the course of this onward rolling sphere is denoted by the horizontal arrow just below it in the diagram. The old horizon wave line of the primordial sea is shrunken to a faint dotted line — vestigial as it were.

It will doubtless be noted that the groupings of the phenomena appropriate to the respective zones of Intellect and Instinct, seem to do violence to some popular notions, regarding the relative activities of these opposed zones, the extremes of which it has been so long the fashion to denominate as spiritual and natural. Indeed, I hope my arrangements will elicit considerable criticism for it is a subject which will profitably bear much study.

In the zone of Positive Science, governed by known laws, the co-ordinating forces ever interchanging between heart and brain through a common center, as lines of force in the field of two magnets, are most appropriately symbolized by the curve S which science has already adopted as a symbol to express the

idea of an activity or a re-action, which is most intense or swift-est at its center and gradually slackens or weakens towards its extremities, capable of exact mathematical expression in time function terms.

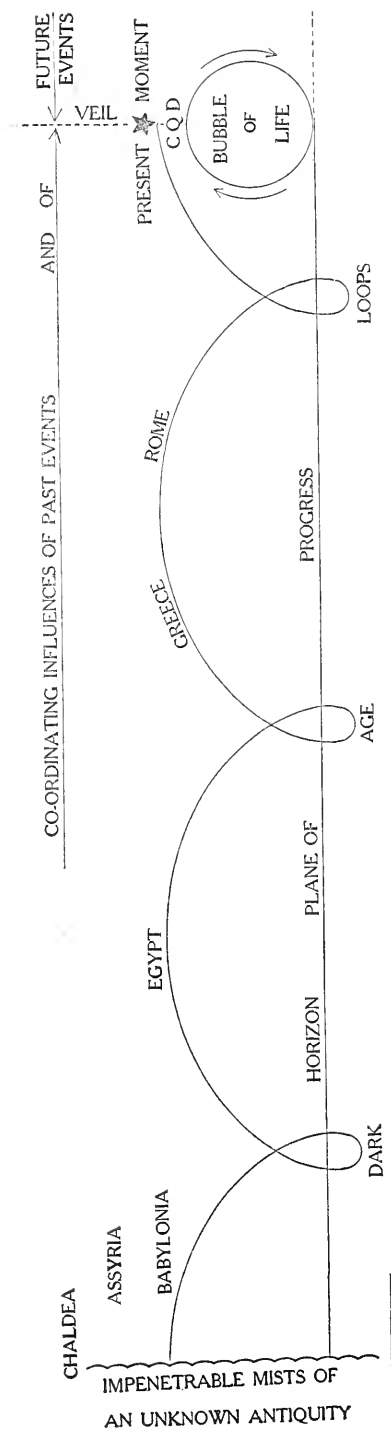
A pair of these curves makes a form similar to the figure 8, which surrounds and unites heart and brain.

Gen. stands for the generative principle as represented in the chart, in the realm of the Red.

Onwardness.

Scheme Showing Onwardness In the Psychic "Experience" of the Race.

Progress is not in "Cycles" but Cycloidsals.




Direction of ONWARD Progress

Onwardness.

"May I not kiss you now in superstition?

For you appear a thing that I would kneel to."

Fletcher: Love's Progress.

N portraying the idea of *onwardness* as a discernible feature in the psychical life of the race, the mind is at first assailed with grave doubts. *Is there any such thing as psychic progress?* Is there a particle of scientific evidence that either thought transmission or prescience, as a practical human accomplishment is any further advanced today than it was ten thousand years ago? Whatever calm conclusions science may arrive at later, on that point, the chances are that any one who, at the first blush, should aver faith in the affirmative of the proposition, would be called *superstitious*, (if not something harsher), by the average contemporary mind, infatuated as it is with the characteristic passion of the present age for science.

But let us proceed calmly. In the first place, any attempt to answer such a question should be preceded by an analysis of the term *psychic progress*. In this process there is immediately evident the necessity for that sharp distinction which I have elsewhere outlined as existing between the mental and the psychical.

Psychic progress need not necessarily imply mental progress, any more than mental progress implies psychic progress. They *can* get on separately, though they naturally lend each other a certain amount of mutual support, especially as in this present day, physical science and psychology are at last traveling that bewildering way harmoniously, hand in hand, like the babes in

the wood, whom the *intelligent* forces of nature treat kindly,—*when they draw near to her in fearless faith.*

It is not so easy to depict these separate lines of progress, as it is to lump them and let them go at that. For instance it is vastly more difficult, if not quite impossible to *demonstrate* progress in the province of the *oracle* than in the province of the *wheel*: but easy to go off into a glittering general rhapsody over the wonderful things this tremendous fellow, man, is up to *now*, and what he *will* do when he sprouts his new “sixth sense.” But the idea that *superstition* as commonly understood is the peculiar fabrication of the psychical life, is what I am ready to combat. The very opposite is most startlingly portrayed in the tabulation of “specific results” in the two provinces, at the end of the next chapter.

I would only say briefly here in passing, that the question with which we started, may be answered in the affirmative—and the one strongest evidence of that progress is, that science in joining hands with psychology, has admitted to *her* realm the *fact of supersensible impressions*. But more of this later: To return to the idea of progress,—

An editorial in a recent number of a great metropolitan newspaper, *The New York World*, referring to the seething mixtures of modern New Thought Occultism, Oriental Mysticism, and Jewish and Christian theology; where “a new paganism challenges the growth of a revealed religion,” pertinently asks, “What will this ferment produce? Will another neo-Platonic philosophy be generated from the diverse beliefs in the great metropolis of the New World?”

In another issue, the same journal says in a leading editorial under the caption “The Message of the New Literature”—“Is the new literary note one of paganism with respect to the dominion of desire?” Referring to the latest works of such masters of modern literature as Tolstoy, Gerhardt Hauptmann, Anatole France, and others.

Perhaps they think a new lapse into a certain phase of the sensualities of a “new paganism,” introductory to a coming “dark age” is already foreshadowed, as inevitable; but probably of a very much less degree of brute grossness than that

which characterized former lapses, where, as in Babylonia draining the "golden cup which made the whole world drunk," was an act of religious devotion, in honor of Our Lady of the Loosened Girdles. But probably never again will it occur that images of the "*groves*" will be set up in the household, or in public places—not as *visible* signs of worship, at least. Nor will a gilded phallus three hundred feet long, ever again be carried in public procession. There is no call to get anxious over that fear, however certain it may seem that a new looping of the loop of a new dark age is threatened. It is easier to believe that such is only an inevitable incident in a predestined higher mounting in the next upward sweep in the Path of Progress.

Ancient history and tradition, both sacred and profane, explorations of the ruins of buried cities and the miraculous recovery therefrom of a lost language, whose cuneiform inscriptions, revealing, not the work of worms, but the lore of a vast civilization of incomputable antiquity, indicate that the progress of the race has been in ups and downs, the inscrutable purpose of whose tidal waves are not yet discovered. We see plainly enough that the race has toiled painfully, and at the most terrific cost of blood and treasure to eminences of great spiritual and intellectual development and material achievement, only to gradually let go again and glide easily down the opposite course into intervening abysses of the so-called dark ages.

Is there room for the thought, that perhaps these were not dark ages at all, but as a whole, only *necessary* periods of spiritual recuperation, of which diurnal sleep is the epitome in the individual?

These curious facts are worth noting, namely, that what modern history calls dark ages, is not that which is accompanied by the free play of unbridled passions, but rather that it was marked by a mistaken religious bigotry that out of all reason suppressed passion as inherently base in itself, and was distinguished for a supine stupidity and ignorance that exhibited no evidences of *progress* of any kind whatever. And on the other hand, that the ages of the ancient world which did exhibit the greatest intellectual activities and material achievement, were accompanied by a free and even unbridled play of the primal

passions. Can these strangely incongruous facts and their "intention" be explained? Can they be symbolized in a simple diagram, where their seeming contradictions may be harmonized?

If one can only utterly suppress the old idea of *cycles* of existence, and set up in its place the idea of a cycloidal progress, a dark age at its worst would only appear as a momentary retrograde movement, inseparable from the nature of the new idea, and, of course, from the irrepressible insistence of thwarted primal passions of the human organism. The trouble with the old idea of "cycles" of existence is that it does not involve the idea of an *onward* course. Therefore the effort should be to picture ideographically a truly philosophical progress where such an *onward* course is supposed to prevail. It should be an effort to break away from the benumbing futility inherent in the idea of life in ever recurring cycles, devoid of *ultimate* progress.

The trouble with the old pagan philosophy is as Saltus says, that it "rolls man ceaselessly through all forms of existence, from the elementary to the divine;" and then flinging him out and back into another primeval chaos, where "atoms shall re-assemble and forms unite, dis-unite and re-appear, depart and return, endlessly in recurring cycles," paralyzes the mind as in a horrible nightmare which has taken hold of the "monotony of hell."

As for me, here again my own mind found relief in recourse to the diagrammatic method where progress was visualized symbolically as *cycloidal* rather than cyclical. But the word alone I fear, may not clearly impart to the lay reader—for whom this is written,—the inherent idea of *onwardness* which the word itself implies. The cycle implies a path in gyration only; the cycloidal a path of translation onward as for instance, that of a nail in the rim of a carriage wheel. We began by representing human life in the abstract with a bubble as a symbol to which we attached by an invisible lien the star of the Present Moment, *at a fixed point, outside the Bubble of Life.*

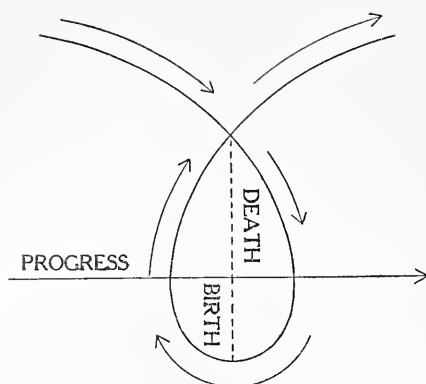
It will be a mild surprise to many who have never thought on the matter critically, that a nail head protruding from a wagon

wheel, or a fixed point standing out from the surface of a globe as it rolls along in space, would *not* trace a figure anything like a circle or a spiral, but only that curious series of curves which are shown in the diagram (see page 74). Observe the three loops extending below the line which represents the plane of progress, or movement of translation, connected by the sweep of longer curves above the base, marked Babylon, Egypt, Rome, — forming a *continuous* series of curves. But curious as it may seem such is the actual figure that would be impressed upon the mental vision, imagining the emblem of the Present Moment to be a visible spark, following the movement of the symbolic sphere of life, as it rolls along on its imaginary course through space; somewhat as a live coal on the end of a stick swung in the air, traces visible shapes of fire. In this case the line of light is a series of curtate cycloids.

Among some of the remarkable features of this curve, are the loops *below* the generating plane. Though the movement of the sphere is steadily onward, the spark accompanying it as affixed thereto, *actually turns backward on its course*, momentarily plunging into the abysmal depths below, before it emerges again for another upward and onward sweep. This curve has such a mysterious connection with the element of *Time*, that it is sometimes referred to as the *isochronous*, (time) curve. It is equally important, perhaps indispensable, in working out the dynamics of wave motion.

It is related of Pascal, that prodigy of genius who invented geometry anew at the age of twelve years, that he had himself firmly strapped in his chair, while working on the problems of this curve, to prevent his falling into the bottomless gulf, on the edge of which he seemed to be.

Crudely amplified in one of the details of this hypothetical new course in the onward progress of the race, the cycloidal loop of the dark age may be likened to the simultaneous death of the old and birth of the New Ideal, typified in the actuality of human life by the living child from the dead placenta:



To pass in swift review the general course of human events we might say then, poetically and figuratively, that during cycloidals (not cycles), of forgotten ages in the ancient pagan world, myriads of magic idols were fashioned with which to “conjure” or propitiate the endless swarms of lesser gods and goddesses — “the demoniac and the divine;” countless temples and altars were reared by the inspired dreamers,—to an *Ideality* —to an intellectuality vast, cold, *outside* spirit of almighty and dreadful power, which produced finally the greatest of all the old Lords of the Old Ghostland, Brahma, Bel Marduk, Jehovah, (Y H W H, Yahweh, Adonai).

So the centuries pass, temples, altars, ancient and holy things, crumble, dissolve and fade away into shapeless clouds of dust. Vagrant winds playing about in desert wastes, hum in the gentle swish of sand tinkling across dry leaves, year after year for millenia of time, nature’s low lullaby over the dust mounded graves of her darlings, whose skulls profoundly silent lie deep in the dusts of a buried past. So the centuries pass, so yet again the death loop of the old becomes the birth loop of a New Age; but this time, over the edge of the new ascent breaks the bright beams of the star over Bethlehem—the new “Light of the World,” with its portent of a new and grander upward sweep of the cycloidal Path of Progress.

In the light of this new idea of progress it is a superficial mind and a shallow judgment of the broad field of facts, that

blames Christianity for the thousand years of material impotence through which we have at last emerged. It was but the inevitable darkness of an Age's immaturity, yet too near the night of the shadow of death and dawn of a new birth; it was but the feeble creeping and stumbling of the race of man that had again entered, and emerged from its mother's womb, for spiritual regeneration. So new centuries passed while the black and bloody pall of the last dark age still hung over all Christendom. Again the reign of a blind FEAR of an unknown and vengeful power was on. Magic, witchcraft, bigotry, fire and rope and sword, ruled all lives. But all this was destined to become at last a forgotten night horror, a bad dream dissolved in the searchlight beams of yet another New Day.

Under the law of progress, again a new eminence is painfully and laboriously gained. The first scientists of the new age suffered ignominy, prison, and death. The present day apostles of psychic science suffer only the sneers and jibes and ridicule of those skeptics who follow blindly the dogmas of orthodox materialism. But what care the new heroes? For look! as we emerge from the last so-called dark age, who are these majestic forms that tower above the horizon plane?

Enter the New Lords of a New Ghostland. Enter the stern browed scientists.

For again the turn is safely made; but sure as fate the curtain has rung up again on the same old background of shadowland. The new actors, trooping into the lime light bear new banners, and orthodox science is not a whit less intolerant and dogmatic than religion with its Bible texts was wont to be. Some of the newest banners read, Relativity, Radio Activities, Unexplored Biology, Soul-cells, Pangens, Pragmatism, Monism.

How pitifully their vain transparencies glimmer; veritably like so many pathetic little tallow dips held up to the sun of Nature's deeper revelations, flashing through the chinks of the commonest of her mysteries that forever have attended us, forever old and forever new—and forever beckoning on—Aspirations, Intuitions, Sleep and Dreams.

I have everywhere emphasized the necessity of recognizing the sharp distinctions existing between the *mental* and the *psy-*

chical, and the corresponding terms expressing them. Thus, mental progress depends wholly upon properly co-ordinated *sense perceptions*: while psychic progress depends upon an alert "awareness" of direct *impressions* proceeding from the superorganic energy of "life."

So also I have drawn distinctions elsewhere between the terms *sense perception* and *sense impression*, which it is well to be reminded of in this connection. These distinctions are vital. But all *progress* of every nature, as well as all human *knowledge*, are, in the end, questions of SENSATION. Only the test which science ever seeks to keep rigidly applied is, "Is it a *sane* sense perception? And yet in the very application of that test, it is almost immediately halted by the question, "How about the signal triumphs of *genius*?" Are *they* always *sane*?

As a general proposition all will admit that the more direct the proof by practical achievement, in the province of the wheel, —(which includes radium and 'wireless'), which the inventive geniuses of science furnish, the more readily does the public mind accept as gospel, the precepts of the physicist. But none so readily as the scientist himself.

Now superstition is best defined as faith in a precept. The exact *original* meaning of the word is unknown, or very uncertain. But the Century Dictionary says it is supposed to mean a standing over something in amazement and awe. So an unreasoning fear of the unknown, which is the derived meaning as commonly used, does *not* define it, because in the minds of the great majority of people, its first and best synonym, is credulity. A proneness to gullibility and belief in power as attaching to all that passes understanding. Sir Matthew Hale was presiding in his court, relates Dr. Dendy, on the trial of a witch. She had cured many diseases by a charm in her possession, and the evidence was conclusive of her guilt. But when the judge himself looked on this charm, behold, it was a scrap of paper, inscribed with a Latin sentence, which in default of money, he himself, had given many years before, in a merry mood to mine host by way of reckoning.

Hitherto science has rather scorned the idea that feelings, emotions, intuitions, could possibly weigh anything at all in the

investigations of physical fact. But now it no longer scorns the idea of the III (*the Individual Independent Intelligence*.) Heaven bless us, Prudence, the whole camel will soon be in the tent of science. Science and Psychology are already holding hands in mutual admiration.

The superstition of the scientist—his implicit faith in the triumphs of its geniuses, and in the precepts of brother scientists —, is but his own presentiment of the unguessed power of the III,

It is a great mistake to regard superstition as something wholly unworthy or degrading, or characteristic of ignorance. On the contrary, I believe that psychic progress and the growth of superstition are mutual measures one of the other, inseparable. The more superstition the more psychic progress. In the end, superstition is the brightest jewel in the crown of science. Because, as I said before, superstition rightly regarded, is only a presentiment of the powers of III, the human faculty which is many degrees nearer God than mind or intellect alone can ever reach.

If, as Solomon says in Proverbs, "It is the glory of God to conceal a thing," all the more must it be to the honor of science to find it out. And this is not impiously flying in the face of the reproof "canst thou by searching find out God?" for it would be a superficial way of looking at the matter, to construe the searching for the *thing* He has hidden as an effort to find out God Himself. But even there, the searching for the *thing* leads to such fathomless depths that the distinction, *if any exists*, is easily lost. Indeed, even that magnificent figure in science, Ernst Haeckel, the arch materialist, has quickened the pulse of the thinking world in his latest utterances in "Scientific Confession of Faith." He says, "God is everywhere. As Giordano Bruno has it, 'There is one spirit in all things, and no body is so small that it does not contain a part of the divine substance whereby it is animated.' Every atom is thus animated, and so is the ether; we might therefore represent God as the infinite sum of all natural forces, the sum of all atomic forces and all ether — vibrations."

So it is seen that even the most emotionless of all the great hard headed scientists come honestly by their superstition. And perhaps, after all the most convincing evidence of a psychic prog-

ress for the race is in the fact that the more a man knows the more deeply and truly superstitious he is.

In regard to a public diffusion of superstition as it is commonly understood, can any one tell whether a single one of the so-called old deep seated superstitions of the race has ever been abolished by science? Is it not true that science has intensified them all? Perhaps it may occur to someone to suggest that witchcraft is an example of an abolished superstition. Such a one would be woefully ignorant of the facts. It is true we no longer hang practitioners, or banish participants and believers; but how about the astonishing fact of that inaudible, invisible but blasting and withering lightning force of evil which so many good people believe in?—the M. A. M. whose fearful bolts were launched by silent, absent treatment, against the prosecuting attorney in the Eddy will case?

And how about the invoking of materialized “spirits” under the auspices of a more material and rigid “science?” How about Sir William Crooke’s Katy King? Is it not true that a list of believers in that and similar miscalled “psychic” phenomena, would contain the names of scores of the most brilliant and successful men of science the world has ever known? Did not Cæsar Lombroso, the great Italian, only last year declare that he had conversed with his dead mother? And did not Professor Charles Richet, the greatest living French physiologist, honestly believe and assert that he saw with his own eyes, a helmetted warrior arise out of the body of a girl in a trance?

And again, how about that “bewitching” of almost the whole Academy of Science, the highest seat of scientific learning in France, which caused sincere belief in the authenticity of letters dictated by the ghosts of Galileo, Newton, and Pascal, which were printed in its own periodical — letters which were the work of a forger, who afterwards confessed?

No one could show the tendency of the scientific mind to superstition, more effectively than has the brilliant French physicist Gustave le Bon, in his communications to the London “Westminster Gazette,” reviewed in “Current Literature.” Again the great Becquerel, whose father and grandfather before him were noted scientists, in sustaining scientific belief in certain

metallic "emanations," declared that he himself *had chloroformed* Blondlets' famous N rays, which were then supposed as heralding the advent of a new age of science, and gave chemistry such a shaking up as it had not known in ages. Becquerel's treatment seems to have been fatally successful,—at least the famous rays soon after "went out" for good.

I am tempted to add a brief, crude arrangement of only a few of the so-called ancient superstitious beliefs in one column, offset by a bare hint of their modern equivalent in an opposite column. The result is both surprising and edifying, and can be extended much further if one cares to do so:

ANCIENT.

The account of creation (scoffed at by science as contrary to the principle of the indestructibility of matter), as embodying belief in the principle of something *out of nothing*; by an unknown, Omnipotent Intelligence. "In the beginning . . . the earth was *without form and void*."

The *four* mystic elements — earth, air, fire, water.

"Devils and witches," wrote Paracelsus, "raise storms by throwing up alum and *saltpetre* into the air which come down as rain drops."

In the Golden Legend it was written, "The air is full of sprites as the *sonnebeams* ben full of small motes, which is small dust or *poudre*." And Baxter wrote that "Fairies and goblins

MODERN.

Destruction of the "law" of indestructibility of matter, demonstrated by Gustave le Bon in "Evolution of Matter," where he relates making matter disappear absolutely, into the imponderable ether, which he describes as "a solid without density or weight." Now what can a solid without density or weight be but a nothing without form and void?

The *four* elements of proto-plasm O. H. N. C.

Experiments have been made by U. S. Government experts, in rain making, by shooting *gun powder* bombs into the air, which were more or less successful.

One of the grandest figures in science today is Dr. Alfred Russell Wallace, co-discoverer with Darwin in the theory of evolution. His latest work, "The World of Life," shows that he believes the

might be as common in the air as fishes in the sea."

Pagan systems had innumerable gods of varying degrees. In the Gnostic system was the Demiurge, and subordinate graded "dominations, principdoms, thrones, virtues, powers."

enormous distance between God and man is occupied by demigods, angels, elf-gods controlling the electrons of atoms; "soul-cells," little gods "presiding over the struggle for existence among the determinants of ultimate units of germplasm in the physiological cell," as one reviewer puts it.

It has been impossible to account for the amazing fact of heredity without assuming the existence of countless millions of *cell-souls* composing every body. The great Darwin himself said in a letter to Prof. Asa Gray,— "The chapter on what I call Pangenesis will be called a mad dream. . . . but at the bottom of my own mind I think it contains a great truth." Now comes Hugo de Vries with his *Pangens*—little soul-cells, "the bearers of individual hereditary characters."

ALCHEMY:

1. Belief in only four primal elements, and in the transmutation of baser metals into gold,—specifically by the touch of the "philosopher's stone," (a compound of salt, sulphur and mercury).

2. Belief in an "elixir of life." Roger Bacon sent some to Pope Nicholas IV. A solution of gold. As one account goes, an old man plowing turned up a golden phial of it, drank it off, and was thereupon turned into a robust and highly accomplished youth.

3. Belief in the existence of a single elemental substance—nobody knows what, but which was believed to be the "quintessence"

CHEMISTRY:

1. Compare the theory of *al-lotropy*, under which more and more "elements," are being reduced to few. Also, latest accounts of wonderful metallic transmutations, actually accomplished since the discovery of *radium*.

2. Compan published accounts of one of the world's greatest living scientists, Metchnikoff, daily sipping the elixir of *sour milk*, for an indefinite prolonging of life, by exhilarating the blood to kill off the phagocytes of "old age disease."

3. Belief in the scientific hypothesis of a luminiferous ether, absolutely unverifiable, but nec-

of the four known "elements," and common to all, called *alcahest*. All alchemists were in search of this—at its touch everything would "blush into virgin gold." It was the mother of the elements and grandmother of the stars, etc.

Lemurs and lars—little angels and demons of good and evil.

Ancient belief in the marvelous powers of the "Primal Light" by which one could see through all solids, and down into the earth, and to the ends of the earth.

Under *Miracles* may be mentioned that mysterious instance of a supernatural warning of an impending disaster, which came to Belshazzar in strange characters of fire, from out the shadowy background of his lofty chamber walls, which only *one knowing the code could interpret*.

Thus the comparisons may be multiplied astonishingly; and one may well ask which of these last is the greater miracle? But it is in such significant comparison of superstition breeding events, that one detects the unmistakable element of *quality*, which denotes the fact of onwardness in the higher *purposive* progress of the race.

A recent book which has achieved considerable popularity, "Is Mankind Advancing," reaches a rather hopeless and forlorn conclusion in its answer to the question of progress, which I

essay to account for observed facts; without it many chemical theories would share the fate of alchemy.

Microbes, bacteria, bacilli, both protective and destructive.

The X ray of science that reveals hidden things invisible otherwise: the microscope that lays bare the heart of things, and the telescope that reaches far—all by the power of LIGHT.

Compare that ancient miracle with the one wrought by science, and the courage of Jack Binns, whose hand flung abroad from the fated ship Republic, the magic C Q D of Maconi's code; which invisible signal of disaster was "picked up" out of the darkness of night by a distant ship, *was interpreted* and "located," thereby saving 700 souls from imminent death.

would fain offset. The trouble with the argument advanced is that it proceeds from several decidedly irrelevant and inadequate assumptions. For instance, in unwarrantably substituting the test of a narrow *individualism* in the place of a broad racial *principle*: as when the author holds that any epoch must be judged by the number and calibre of its men of genius. This, very clearly, is the same narrow point of view of Huxley that "The advance of mankind has everywhere depended upon the production of men of genius." I say the criteria applied is inadequate in several respects. First, intellectuality, as the power of reasoning, is thus applied as the sole test as to whether mankind is advancing. It is cited as adverse evidence that no subsequent epoch has ever produced such prodigies of intellect as ancient Greece furnished in the person of Aristotle and Plato, and some others. This, of course, would all be quite impressive evidence if intellectuality could be accepted as the criteria of progress, which it cannot be. Rather in the place of such individualistic specimen selecting, must be put a principle which the RACE may be developing.

Suppose that principle were philanthropy for instance, and we should turn the matching of geniuses about, by asking what genius of antiquity can be named to match the glory of the George Peabodys of a later age? Or we might name this purposive racial principle, *Humanism*, not in its narrow theological sense of the middle ages, but in the broader spirit that builds modern free hospitals and the like. Now the intellectuality of antiquity was high, but it never freed its slaves: or devised model prisons for the reform of criminals. Intellectuality and justice are alike cold blooded. I never read that Hammurabi allowed his subjects any voice in the making of his laws. It takes something finer than intellectuality to constitute the advance of mankind. No one ever saw this truth more clearly or taught it more consistently than the gentle Christ. He warned the race against the worship of false gods. But the most insidious of all false worships is the worship of mind.

And as for the very *slow* development of a racial principle, did you ever catch nature in a hurry about anything? "It is very difficult to be everything," as Anatole France said in excusing the "terrible heavy handedness and awkwardness" of nature.

What are the little brief intervals of time that constitute so-called epochs between genuises of history—nay what is *all* history compared with the hundred million years of “life” on the globe? They are futile, wholly and utterly inadequate as tests in the question of the racial progress of mankind. If we apply the subtle principle of human sympathy and LOVE as a test, in the place of intellectuality surely the evidence of progress, even in the “epochs” since Christ, is overwhelming. So in the symbolisms of epochs, what in all antiquity is there to match the C Q D of twentieth century advance, as an instance of the principle of brotherly love practically applied? This is the ripening fruit of that ineffable principle of “fellow-feeling” which is so unique—so unlike anything else the world has ever produced.

Surely the best interests of that wonderful coming race, seem to demand that intellect—magnificent a product of biologic energy as it is—should be made to realize its inherent inferiority to instinct and intuition as the products of the more primitive super-organic energy of “life.”

Basting Threads

In the Argument for Prescience.

*"This is a question which after five thousand years, is still undecided.
... One of the most important which can come before the human
understanding."*

DR. SAMUEL JOHNSON.

ANY of the confounding contradictions which modern materialists encounter in considering the scientific possibility of the survival of a personality after death, would vanish if they did not make the mistake of considering *mind* as constituting the personality. As it is this survival idea that furnishes the supposititious human "spirit" *source* of prescience, the assumed destruction of the mind, at dissolution of the brain, destroys both survival and prescience. But there is the mistake, for if it is admitted that mind constitutes the personality, then it may be necessary to admit that there is no survival. Now while immortality is not directly the question at issue, prescience as a human faculty is; but neither prescience nor immortality are properties of *mind* at all, but they are properties of *something else* which pertains more intimately to "life" than *mind* ever does or ever can. No headway whatever can be made in solving this question of prescience and all that it implies, until the above distinction is recognized as vital. What that something else may be it is the purpose of the following threads of evidence to outline.

Plato and other great philosophers, have made much of the strangely persistent idea of a principle of duality running throughout the universe. But in human life there is clearly a *trinity* involved. This is not at all theological. The trinity in humanity

is composed of the soul, the individual independent intelligence, (III, ELLU), and the mind. Nobody ever says of an insane person, "he has lost his soul," but "he has *lost his mind*." Thus there is given a subtle unconscious expression to the above truth. While my effort thus far has been to point the wide distinction that surely exists between mind and soul, and to emphasize the fact that mind is inferior to the faculty of intuition in the hierarchy of life powers; or in other words, while I can see no reason for *deifying* mind, as partaking of or synonymous with spirit, as many good people are doing, mind still has glory enough of its own, in its own limited *organic* sphere of biologic energy, which may not be withheld. The others of the trinity pertain to the superorganic energy of life.

So, if in giving due credit to the powers of mind, I were to tell you that some of the most advanced practical conclusions, based with rigorous exactness upon the marvelous discoveries and methods of modern science, could have been reached by mind alone, without the aid of any of the exquisite appliances or discoveries of modern science, you would be likely to set me down as crazy. But you would admit that the best test as to whether a thing can be done, is the fact that it *has* been done. We have all read how Professor Loeb, the great biologist of California, has caused organisms to form; actuated only by the manipulation of inorganic substances. But listen to this astounding announcement of a practical conclusion reached by the refinement of modern scientific appliances as recorded in a recent magazine publication,—namely that animal tissue, cut from and entirely removed and disconnected from the live body in which it was formed by the life principle of that body, is not only made to remain alive indefinitely in a plasma medium, but *to grow*, "as if still endowed with some of the life principle of their living owner, though severed from him," as Dr. Ledoux expresses it.

Now it is inconceivable, you say, that the mind, unaided by the powerful equipments of modern science, or their equivalents, could have reached by any possibility such a practical conclusion as that, by the mere logical process of abstract thought. But listen to this: Fourteen hundred years before Christ, Gutami, the author of *Agricultura Nabat*, (of the thousands of volumes

unearthed at ancient Babylon), published a long article on the *artificial* production of plants, metals, and *living animal tissue*. And in "Remnants of the Ancient Babylonian literature in Arabic Translations," Dr. Chowlson of Petersburg shows that the ancient scholar had laid it down as a maxim, "that if a man were to minutely and carefully observe the process of nature, he would be able to imitate nature, and produce sundry creatures. He would not only be able to create plants, and metals, *but even living beings.*"

The ancient sage saw the prime necessity of observing nature *minutely*. So if science is ever to find out anything definite concerning the nature of that mysterious and almost boundless force which we call mind — a necessary first step would seem to be to learn all about the nature of the earth relation *substance* through which mind manifests itself. The ancients halted only at the nature of matter. They could not observe minutely. But it was legitimately and perfectly conceivable that intellect *could* devise a way to do artificially what the vital principle did naturally, namely, construct live animal tissue, *could it but make the necessary observations*. Well, where has modern science halted? Modern science halts at the same vexed question of the nature of substance, and whether or not there is such a thing as an ultimate "atom." On that question hangs the present imminent upheaval and threatened revolution in hitherto accepted scientific theories.



THE LIMIT which science quickly reached in its investigations into the nature of substance, was the limit of the microscope. It could not observe the processes of nature "minutely" enough. Yet the lens had opened to deeper conviction, knowledge of the fact of the utter incomprehensibility and power of the *infinitely little* in nature. Substance was divided into two grand classes, which it was thought, must forever remain separate and distinctive.

The limit of the microscope was found to be in the *nature of light* rather than in the want of power in the lens. When that fact was realized the "ultra microscope searchlight" attachment

soon followed. A minute electric ray was provided. Dr. Ledoux beautifully assists the reader's comprehension of the vast power of this new attachment to penetrate a little further into the marvels of that world of mysterious secrets hidden in the infinitely little of nature by an apt illustration. For instance, the common divisions of the inch into eighths and sixteenths, and the French millemetre, which is about one-twenty-fifth of an inch, are mentioned. He then simply notes the fact that the new ultra microscope searchlight makes an object visible which is a million times smaller than a millemetre in length. Yet its vast power is very far short of reaching the still smaller atom. And beyond the atom in attenuation of minuteness, is the substance of the stream from the cathode ray, which Sir William Crookes says is substance broken into still smaller divisions than the atom, "a substance which is neither solid, nor gaseous, nor liquid." This is the substance which has compelled the erection of a new science, the science of radio activities.

But further and still further down the scale of the infinitely little in nature, in tenuity far beyond the new substance of the new science of radio activities must be the "life" germ, that from, or with these substances, fabricates animal tissue in a "natural" way. How hopeless then seems the task of making that tissue artificially, if done with a view thereby of ascertaining the *nature* of the life principle. Here indeed Zophar's question may be urged, "Canst thou by searching find out God?" How much more hopeless when we consider that still again beyond the organic conscious mind principle is the independent intelligence that builds tissue in metabolism — the superorganic energy which ensouls and dominates the purposive activities of the tissues, without which there could be no organic process of thinking.

The worst mistake of modern science in this matter, as well as of philosophy, is in underrating the almost infinite scope of the Independent Intelligence — the power that actuates imagination by shaping intuitions, — that thus plays upon the *machinery* of mind, causing it to dream dreams when half awake, or in abstraction, as well as in deep sleep.

Ben Jonson told Drummond that he lay awake one whole night regarding in mute admiration and amazement a great mul-

titude of little people from all parts of the world, surrounding his great toe, like an endless procession in fantastic garb, passing a giant in review. Jonson stated explicitly that he was not dreaming, that, on the contrary, he was wide awake. This far incident is selected out of available thousands nearer our own times, because the whole world knows upon mature reflection, that Ben Jonson was anything but that which would nowadays be flippantly referred to as "bug house." He was not a visionary. He had the finest library in England. As proof that he was what is generally considered eminently practical, I cite his concluding remark to Drummond, — "of course I knew it was all illusion."

But as matter of fact that remark shows that he was not as practical as he might have been. If this little book has any special purpose it is to point the sad mistake of humanity in ignoring as necessarily illusions, the symbolic visions of its rarest moments. Perhaps Jonson's vision had no special significance anyway. But to me it is conceivable, especially as the vision was in the conscious, waking state, that it was the orderly cerebration of that most powerful property of the human mind, which we call ABSTRACTION. So it is easily conceivable that his vision was truly prophetic of that world wide fame that was to be his, as the intellectual giant that he was.

Once, while lying awake, I saw a *man with a magnifying eye*, step forth from the midst of a host of tumultuous fancies, and stand quietly regarding me. He had *three* eyes in the place of two. When the centre one of the three focused on any part of me, it made that part of my flesh creep, as if the conscious muscle cells were dodging its ray. I enquired of him what it meant. Whereupon he told me that his third central eye not only magnified beyond the power of any microscope known to science, by virtue of a certain ultra ray that it had the power of filtering, but that with it he could see into and through anything; that he could therefore contemplate an object from all sides at once, exactly as it was, and not in false perspective; that therefore it was, in a certain sense, a fourth dimensional organ.

Then he proceeded to tell me some very amazing things about the nature of the "Primal Light" of ancient Jewish literature, which, he said, with a slow wink of the third eye — the most

grotesque performance I ever witnessed,—was as well known to him as if he had actually lived in that remote age, which, indeed, with the wink seemed like a confession that he had lived then. But the story of the man with the magnifying eye is a tale by itself. I need only speak here of the prophetic and symbolic character of the apparition for the present purpose.

The third eye of humanity of the present age, is the LENS of science, as it is used in telescope, microscope and camera. *Its limit is the nature of prismatic light.* Now if the powers of the natural eye augmented by the lens, were great enough and quick enough to behold the *movements* of the infinitely little, the substance within the cell and atom—we should know much more. But as it is we are only very slowly learning mighty little at a time. Still we have learned this:—that some of the *laws* of nature are absolutely inexpressible in words. Great geniuses have handed down their discoveries, only through the formulas and symbols of the higher mathematics, which are meaningless to most of us. This power is reached through *abstraction*, which produces symbolic visions, and is to the eye of the mind what the X-ray and the lens are to science.

So the presence of that third eye in the vision was simply symbolic of the eye of ELLU. That is to say, denoting the presence of the INDIVIDUAL INDEPENDENT INTELLIGENCE. Some scientists believe that an “organ of representation” actually exists and will be found within the brain machinery of sight sensation or elsewhere in time. Now do not imagine, Prudence, that this is merely *my* far fetched and fantastic fancy, dragged in to support my argument, wholly unsanctioned by the authority of scientific thinkers. Speaking of percepts of peculiar *qualities* in great diversity, which at present it is impossible to account for, the great scientist Prof. Ernst Mach of Vienna comments thus: “But whence is psychology to derive all these qualities? Have no fear, they will all be found, as were the *sensations of muscles for the theory of space.*” (The italics are mine.) *Analysis of the Sensations*, p. 392.

Referring to the possible presence of an “*organ of representation*,” Mach says in the same work, pp. 85, 86, “Physiological experiment, and simple self-observation teach us that such an organ

has its own adaptive habits, its own peculiar memory, one might almost say its own intelligence."

And again this, on page 89 . . . "We may now turn to the consideration of a few physiologico-optical phenomena, the full explanation of which, it is true, is still distant, but which are best understood as the expressions of an *independent life* on the part of the sense-organs."

—ooo—

THE brain is popularly regarded as the specific organ of the mind. "Brains" may be picturesquely defined as a machine of an incomprehensible complexity of design, composed of some six hundred million cells, arranged in departmental subdivisions, each division presided over by appropriate centres; each cell having many tree-like fibres possessing in some unknown way an exquisitely delicate sensitiveness to various kinds of vibrations. Now the primary purpose of this machine is to transform sense *impressions*, resulting from the on rushing flow of incoming vibrations, into sense *perceptions*, and also, for working over that subtle dual product of the transformations, known as consciousness and memory, into knowledge; and then to co-ordinate the whole into the finished product which is INTELLECT. The highest refined product of intellect is science.

But let no one therefore imagine that intellect is the highest product. Far from it. Or that science is a pure brain product. Far from it. For there is INSTINCT and intuition *with its offspring imagination*, and what were science without *that*? Intellect is brain born, but elemental affinities and their product LOVE and the feelings and emotions, and intuitions, are not brain born. If biology speaks the truth they existed before brains. Intellect, which by common consent is universally symbolized in the *Gray* matter, is, in fact, if we reason from physical analogy, the most ephemeral and least important in the trinity of humanity. "The brain and nerves die first," says physiology. "We are born red and die gray," said the seer poet Emerson.

The *fact* that the most enduring part of physical life is scientifically and logically symbolized as resident in the *Red*

element of life, is just now, the thread I am giving prominence to. The *ultimum moriens* of the great Harvey, (the heart), endures longer, is the *last* element to succumb to somatic death. This is a subtle and mighty significant *psychic* fact.

But to come back to the cold and *emotionless* fact of Intellect, it is impossible not to recognize the fact of *design*, in the biologic history of that sublime product which ectoderm and endoderm have reared through the inconceivably long ages of a preparatory (red) plasmic existence in the evolution of human life. If design then a Designer. But it is not necessary here to plunge headlong into a fog of theology, or fly in the face of Divinity, as the only adequate fact for the inexplicable, as a dear little fellow once did when I offered a prize to anyone who could tell correctly what made the boomerang come back, who wrote,—“I am a little boy nine years old, God makes the boomerang come back.”

A designer uses instruments, so the logical question is not so much the nature of the Designer, as the question, with what *instrument* did the unknown Designer fashion the human facts of love and its aspirations, of the emotions and *feelings* of the Red—and instinct and intuitions, if not the indisputable fact of an INDEPENDENT INTELLIGENCE that accompanies and is *a part of human life*? By independent, I mean an intelligence that is purposive in itself, and may act, (as I believe it does in great emergencies), absolutely independent of, and irrespective of the initiative of the slower acting intellect or reason, whose mechanisms it seizes with masterful hands, and impels action. Nothing is surer in life than the fact that instinct is independent of intellect.

THERE is yet another thread of evidence furnished in the class of significant facts, upon which the brand new theory of medical science is based, that of Dual Personalities. It is a well known fact that there has been in operation in Europe for a few years past, a new treatment for diseases of the *gray* element of life, that is to say, *nervous* diseases, known as Psychanalysis. It is reported that at this writing, the treatment is

being adopted in this country by the Johns Hopkins Hospital. This treatment is based upon the general theory, originated by Doctors Freud and Jung of Zurich, Switzerland, and adopted by some of the most advanced institutes of medical science, that all men and women possess dual personalities, and that all nervous diseases are a product of the discords which these personalities may fall into.

It is well nigh universal to regard these personalities as the legitimate product of the gray element of life, which culminates in the marvelous organ, the *purpose* of which, we have seen, is the *transformation of vibrations*. It is pertinent to enquire whether these different personalities apprehend vibrations of totally different natures. One of these personalities we know, the conscious one for instance, cannot perceive the phenomena of color produced by the vibrations of the "ultra" rays, nor "hear" certain sounds — But how about the other?

One can read in any good medical library, recent books on dual personalities, notably Dr. Morton Prince's "Dissociation of a Personality," and there meet the vagrant and incomprehensible "Sally," who takes such a deep hold on the sympathies, that one can say it seems almost a scandalous shame to read how the Doctor deliberately discusses ways and means of killing her. Also in the "Annals" and "Proceedings" of scientific societies for psychical research in all parts of the world, there will be found accounts of that mysterious and strangely puzzling phenomenon, the changing of a personality in the life of the same individual, where each personality has a complete set of memories unknown to the other.

But there is another class that exhibits a feature of greater significance, a case of which was developed in the life of the late William Sharp — (Fiona MacLeod), which in a recent number of *Current Literature* is mentioned as "The strangest case of dual personality on record." The significant feature in this case is that a "Central Self," is *conscious of* both sets of memories, and *struggles to co-ordinate* the moods and reasonings of the two widely differing personalities.

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IN basting into the argument a few of the facts of every day experience which are more directly prescient in their nature, I purposely avoid that vast mass of psychic phenomena which *seem* to have no other explanation than spiritualistic, such as communications supposed to be actuated by spirits of the dead. That would be going beyond the present enquiry. So I gather up from the mountains of legitimate evidence that exist, only representative cases of prescient dreams, clairvoyant *sight*, "seer-ship," and states of involuntary abstraction of mind wherein communications have occurred between subjects, *both living*, and more or less widely separated in space. Science may very properly have a horror of drawing upon its most powerful asset, imagination, to solve the problem of spiritualism, but it cannot if it would, avoid these others, because the best scientific test as to whether a certain thing *can* happen, is the fact that it *does* happen. It is therefore the duty of science to *discover* the conditions under which the thing happens rather than to dogmatically assume those conditions. Now I claim that that last is exactly what a great authority in psycho-medical science did when he pronounced the following dictum concerning dreams. "The data upon which we must depend for the determination of the mechanism and interpretation of dreams are the memories of subjects upon whom the observations are made. The memories are first those of the dream itself, and second, those of psychologically related past experiences of the subject. The problem is to determine the relation, if any, between the dream and such antecedent mental and physiological experiences and co-active *sensory stimuli*." (The italics are mine as I refer to that vital point later).

There is altogether too large a class of the most respectable cases of credible record, to say nothing of millions of individual experiences that are never published, which that theory will not fit, for it to be accepted as final. The most illustrious example of such recorded cases that I know of, is the remarkable dream of the great naturalist, Professor Agassiz, which I refer to more at length on another page, by means of which he was shown directly the solution of a scientific problem which could not have been by any possibility, the result of any memory experience whatever.

Nor can that theory be made to fit the vast class of cases where dreams, heeded as warnings have saved innumerable lives from death or disaster. So, too, it is too utterly unscientific to dump these cases with a contemptuous shrug into the already overcrowded lumber room, "coincidence." Likewise no scientific theory has yet been made to fit that class of cases of "seer-ship," an example of which I reprint elsewhere by permission of the late Professor James. Nor yet the case of direct communication related in the autobiography of Henry M. Stanley.

I believe that the kindly superior intelligence that guides dreams will always come to the help of the struggling mind, and well for that mind if it "senses" the offered help. It is almost always the question of the correct rendering of symbols. As in the case of Elias Howe, who had met disheartening failure year after year in his vain struggles to grasp the elusive mechanical principle that should complete his invention of the sewing machine. At last, one night in a dream, he saw a long line of mounted warriors with leveled lances, making a charge. He was thrilled by the inspiring sight, but what thrilled him most was the singular detail that every spear *point* was pierced with a small *hole*, through which *he saw light*. Instantly the thought flashed into his mind, "I must thread my needle at the point"—and the whole civilized world paid that farmer boy tribute for correctly interpreting the symbol of a dream.

To recapitulate,—briefly then, these are the bold facts of both science and nature, which like glittering beads stand out, as it were, upon the outlined seams of the argument. First the fundamental fact of ENERGY and vibrations through an unknown and perhaps unknowable substance; then the evolving of an almost incomprehensibly marvelous mechanism for the transformation of these vibrations into the general fact of sensation impressions—into "awareness," through "awareness" into sense perceptions,—consciousness and memory; through these into reflection and judgments; through *co-ordination* of these into knowledge; through knowledge into intellect; through intellect into its own highest products, science and philosophy.

But all the while the above procedure was working out, and previously, *something*, God knows what, an unknown some-

thing, worked out another succession of facts, *prescient in their nature*, namely, intuitions, emotions, feelings, aspirations, prophetic dreams, clairvoyant sight, and *direct communication* between *minds* whose bodies may be widely separated in space. Now logic, regardless of the attitude of science, compels me to stitch these facts into the fashioning of my argument. Still that missing, *intermediate*, unknown something, (which I am precluded from blindly vaulting, to reach the ultimate Divinity prematurely), leaves a gaping seam. But I did not hesitate to close that gap firmly with a golden thread, on which are strung the twin beads marked INDIVIDUAL INDEPENDENT INTELLIGENCE and ABSTRACTION. They produce no discord with any other known fact of either material, biologic or psychic science.

And now finally, to fasten the basting thread as it were, here is this subtle and deeply significant fact, the *fact* of the reluctance of science itself to admit intuitions and the rest, *as* facts to the realm of positive science. This is the tacit unconscious admission of science that it fears, nay, "*knows instinctively*," that brain made intellect cannot alone account even for the *existence* of these outward facts, let alone explain them. That is the real, unspoken reason, but the ostensible reason given is, that prescient psychic phenomena are not subject to *sense perception experimentation*, which will convict scientists at least, of being extremely illogical, since I am now about to show the vital difference that exists between sense *impressions* and sense *perceptions*, as well as the existence in the very foundation of science itself, of several props composed of absolutely unverifiable hypotheses.



SUDDENLY an old lady screams and jumps from her chair as she sees a mouse running towards her on the floor; then quite as abruptly smiles somewhat confusedly, but serenely as she discovers a tiny insect on her glasses.

A hunter sees a deer on the hillside and brings his rifle to bear, and suddenly gives vent to an exclamation of disgust, when he discovers by a little telltale glint from a shimmering piece of

web, that his stag is nothing but a small spider hanging from his hat rim above, close to his eyes.

Many years ago when steam trains first crossed the great plains of Eastern Colorado, I used to see herds of buffalo from the car windows — animals now quite extinct. Yet only the other day I saw another very distinctly in the far distance. There was no mistaking that grotesque shape, with its ponderously big shaggy head, abnormally high shoulders and diminutive hinder parts, and the little pantalettes as it were, flapping like a sailor's trousers on his two front legs, as he galloped away. But imagine my sudden surprise when the glint of a transparent wing betrayed to my slower reasoning faculty the all important fact that buffaloes do not have wings, and that consequently, upon reflection, that my sense perception was entirely wrong. There on the car window was the *external* cause of the involuntary mistake, a little speck of a black gnat running across its smooth surface! Whoever has observed the big high shoulders of that powerful little biter, can fully appreciate the completeness of the deception. A gnat is a buffalo in miniature.

The probable subtle cause of all this class of hallucinations, is one of the most intensely interesting facts in science. The laws of perspective, and an automatic measuring sense are involved. It is now an accepted dictum of science, that such a "sense" resides in the wonderful muscle machinery of the eye, and is the sense referred to by Professor Mach, as the factor deciding the theory of space. That it is a *RED* independent intelligence which works with such lightning like precision. Yes, precision, for it is the *mind* which has blundered. The *impression* reported to the brain by the muscle sense was true. But the mind rushes in with a memory image, aroused by association, so that the true impression was distorted into an illusory sense perception, and a mental mistake was the result. But these serve to illustrate also, in a general way, the inherent liability of *all* sense perceptions to cause serious mental mistakes. I purposely selected these illustrations, because they are comparatively more rare. As matter of fact, hallucinations arising from the wrong interpretation of sound impressions upon the sense of hearing, are vastly more common. There is not a single sense which is not subject to hallucination.

There are also other causes — internal causes. Hallucinations are produced by internal disturbances of the sense organs, by something within the ear itself; or by a disturbance within the eye itself, as by some foreign substance floating in the circulating fluid of the retina; and finally by the wrong or abnormal stimulus given to the brain centres of the various organs of sense. Or again by a combination of these various causes of which the following will serve as an example:

One fine day I was gathering apples in my orchard. I had a white cloth bag fastened to a small hoop, which in turn was fastened to the end of a pole. There was one apple I had left behind, a big bright red fellow nodding on a high limb at the very top of the tree. It seemed to be beckoning to go with its fellows. Though already quite tired, I climbed into the tree, and even then had to strain and stretch to reach it. Then, just as I had it clearly outlined against the white background in the bright sunshine; before it fell into the bag, the limb on which I stood, broke. I saved myself — and the apple — and was not hurt, and being now quite fatigued, I went into the house and lay down in a cool place. The moment I lay down I saw again distinctly the last act repeated, — the tree, the big apple high up, framed within the hoop of the bag against the sky — but the apple *was a decided blue*. *Everything* seemed as real and perfect to the sensation of vision as the original impression had been. But of course that blue apple was an hallucination. It was the phenomenon which is explained in the science of optics as the “after-image” of a sense impression.

Now see how subtle the cause of error may be: that after-image sensation of blue, as a *sensation*, was just as real as the original impression of red. To me the perception of it as blue was a deceitful illusion of some sort, but to the physiologist it is not an hallucination at all, only the legitimate “after-image” of an original impression made by a real object, and *his mind* counteracts the deception. But so far as direct sense perception alone is concerned, regardless of the science of optics, which may explain why the sense organ machinery may sometimes under certain conditions, lead the mind into false conclusions, the fact shows the nature of the error that *sense perception*

is constantly liable to. The error is mental. It is the mind every time that goes wrong, and not the original sense impression. So that it has come about that physiology asserts that *sense impressions never err*, while sense *perceptions* must be constantly watched and checked up by corroborating tests. When thus checked and tested perception is fairly reliable as the source of knowledge.

Since the source of all human knowledge is attributed to sense perception, with its liability to error, and since the skeptic as a rule professes to be unable to give credence to anything whatever which is not susceptible of being tested by sense *perception* experimentation, or by legitimate arguments and deduction based thereon, it becomes all the more desirable to enquire further into the nature of the original *impression* which never errs, as well as by way of mild reprisal to dangle before the eyes of the skeptic one of the various fundamental hypotheses of science itself, which are absolutely unverifiable by the test of sense perception experimentation or deductions based thereon.

According to science the nature of sense impression is invariably a question of *vibration* of some sort, propagated in or through *substance* mediums of one kind or another, in various ways.

To account for observed phenomena of nature, science was obliged to assume the existence of an imperceptible substance extending throughout the universe, enveloping, permeating and connecting everything by contact. General theories of energy and conservation of energy were formulated. The phenomena of light and heat and electrical attraction and repulsion, and magnetism were to be accounted for. The theory which seemed to best fit the facts was the theory of *vibrations*, of wave-like undulations propagated in the assumed invisible connecting substance. This medium for the propagation of the vibrations of all forms of energy must be incomparably thinner than air, so thin as to penetrate even the densest objects without hindrance. This substance is the *luminiferous ether* of science. But being *substance* it must have the properties of density and rigidity in *some* measure, comparable to other substances in their known forms. The standard of comparison was water. But beware,

Prudence, lest you confound density with rigidity, for science is a terrible stickler for the precise meaning of its chosen *words*. For instance, while Clerk Maxwell calculated that water was 1,000,000,000,000,000,000 times more dense than ether, steel was only 1,000,000,000 times more *rigid*. Yet this utterly incomprehensible jelly essence of tremulosity, which satisfied all the requirements of science—for a while, is supposed to penetrate other forms of substance only to the extent of flowing freely through the peculiar *groups* of molecules that distinguish the various forms of substance. That is to say, it was not supposed to penetrate the *atom* itself, but only between the members of a group.

This elaborate theory of a luminiferous ether is not only absolutely unverifiable by the test of sense perception, but the new science of radio activities and phenomena of the cathode ray have cracked the hitherto invulnerable atom, and together with the exceeding velocity of light, they have played such havoc with theories that a tremendous revolution in the interpretation of nature is imminent.

Now comes the famous physicist Gustave le Bon, whose dictum leaves Clerk Maxwell far behind; ether is a substance absolutely without any density or weight whatever. If this is true then we have found the substance that is all the more suited to transmitting the supersensible vibrations of the superorganic energy of "life;" whose impalpable impacts may make the *impressions* which we term intuitions, presentiments and the like. Science has demonstrated that there *are* supersensible impressions in the existence of the vibrations of imperceptible "ultra" rays of light, and of inaudible tone vibrations. It is thus warranted in assuming, paradoxical as it is, a *supersensible perception* of the existence of an ether, though it be a substance which has neither weight nor density. It is interesting to note in passing, that the theory of vibrations itself is founded upon the theory of wave motions, which it was quite impossible to formulate without bringing into play the curious properties of the cycloid curve, which I have used to pictorially illustrate *progress*. The main point, however, was to point out that science itself legitimizes a supersensible sense perception. Even the theory of gravitation

has been affected to such an extent by new discoveries, that now the new laws of attraction and repulsion have to be taken into the account for the sake of precision.

But it was necessary to assume the existence of some medium for propagating the various transformations of energy, to accord with the observed phenomena of nature. I may here remind the skeptic that the general theory of energy itself is similarly unverifiable. Anyway, they said, first of all there *must* have been energy present as well as an "ultimate" substance. It is obvious that this energy must have played for ages and ages with the little atoms of inorganic substance, tossing them into all manner of *forms* by molecular groupings, before organisms and organic substances made an appearance.

So there we have it, it was the pounding away of the *vibration* impacts of energy transformations upon the door of "life," that at last made an *impression* on the inmate. I suppose that pounding of the inorganic elemental changes was continued for ages before it was finally noticed, and the state of "awareness" ensued. It was only then that sense perception began its erring interpretations of the confused tumult of impressions.

THE end and aim of science is doubtless a true interpretation of nature. Some say it is for knowledge for the sake of knowledge; for the pure love of it, with an ineradicable horror of touching its commercial aspect; like the old mathematician, who, as a writer in the *Monist* narrates, — emerging from a most beautiful demonstration, covered with chalk, exclaimed, "and the beauty of it is, gentleman, the beauty of it is, it is of no earthly use to anybody." Such is not the real attitude of science. Some good people other than the purists however, probably will feel a gentle shock, when it is put bluntly as so much evidence of the scientific possibility of *divination*, that the prime purpose of science has always been, to *predict coming events*, ostensibly of course, for the betterment of human conditions. It is persistently asking questions of the future. It was the most natural thing in the world that it should be betrayed into

the extremely illogical and paradoxical attitude of making super-sensible perceptions the corner stone of the foundation upon which its superstructure of "kinlore" is erected.

While it is sternly calling for nothing but facts, facts, facts, it admits and accepts the existence of luminiferous ether and "energy." While denying feelings, emotions and *intuitions*, admission to the realm of sensible facts, it only too gladly accepts and uses the powerful tool, imagination. But feelings and emotions are more realistic facts than ether or energy, and INTUITION is the mother of imagination. Without such a nurse as imagination, science, though well born of law and order, could never have survived its infancy. Nothing is clearer than that conclusion. One of the greatest of living bacteriologists, the world renowned Professor Ehrlich of Berlin, says that his "chemical imagination" has always been his "most powerful asset." In view of a prevailing gross skepticism as to the finer facts of life, it is perfectly astonishing, when we come to realize what a mass of evidence there is to support the assumption that prescience is a natural faculty of the Independent Intelligence of the human being. How it can function to consciousness is the burning question. We touch the live wire of prescience and get a spark when we ask the companion question, *how does Instinct function?*

There was "energy" of some sort ages before "life," or biologic energy embodied the "vital principle" in organisms. Nothing is more certain than the fact that instinct antedates "reason"—(of course here, I mean our human reason). Under the scientific theory of the conservation of energy nothing can be lost or destroyed, only transformed. Biologic energy therefore, was only one form of the transformations of the pre-existing universal energy. Dr. Haffkine has beautifully shown that very far down in the order of organic life so low an organism as a sponge will *instinctively shun disease*. Though we know not the details of that way, the mind cannot escape the conclusion that the original "energy" must have been superior to simple biologic energy which through its own organism—and indeed before any trace of an organism was perceptible—*could receive and inter-*

pret impressions. In other words the conclusion is forced upon us that there was, and is, a *superorganic* energy.

It is a far cry from the "chemical imagination" of Professor Ehrlich to the instinct of a sponge, and yet the instinct of sponge and bug is far superior in the fineness, certainty, and infallible nature of its functioning process, than the imagination of the greatest scientist that ever lived. I wonder why. Is it because they can interpret an impression "first hand?"

Once, while far away from civilization, in the forests of central Idaho, I beheld a very significant exhibition of the powers of instinct. I was standing upon the edge of a large opening in the forest, at least half a mile across. My eye caught a movement on the trunk of tree near me. In a shallow opening, apparently made by a woodpecker, I discovered a huge beetle standing and in the act of raising its shell-like wing covers as if preparatory to flight. But it was not for that purpose. For after spreading wide its filmy whitish inner wings with a tremulous motion, it slowly folded them back under their brown covers. This singular movement was repeated several times, when the beetle settled down as if to rest. Happening to turn towards the opposite side of the wide opening in the woods, my eye caught a slight flash of something far away in the sunlight. I watched intently and presently saw in the direction of the flash, a tiny black speck. It grew larger and larger and was evidently something coming in a "bee line" towards me. Presently I saw that it was a big beetle on the wing. He directed his flight straight to the hole in the tree. He had received the love message of the lady beetle waiting there.

But here is a finer illustration of the penetrating power of instinct; confined within a glass case, within an interior room of one of the big buildings of Harvard University, was a female butterfly. Between that room and the trees and flowers and verdure of a little park where other butterflies disported in the sun, was a long wing of the big building, completely cutting off the park. But a male of the same species as the one in the glass box, who knew more than the Professor ever dreamed of, received the captive's message and was soon pounding his head against the window of that room in his vain efforts to make an

entrance. I wonder if there is a bug telepathy! Or is it that bug odours can penetrate glass like light. Either assumption is sufficiently significant. Perhaps that strange power functions through the oldest of the so-called "senses," the sense of smell, which is perhaps the nearest allied to the despised *Instinct*. But the sense perception of odours I believe is not assumed to be produced by etheric vibrations, like the sense perceptions of light and sound, but are actual projections of some impalpable essence or form of the odour-giving substance itself, over considerable distance. So it would seem that that faculty which can interpret an *impression* direct, first hand, so to speak, (into an intuition or presentiment, without the more or less imperfect operation of the brain mechanism of sense perception), from the superorganic energy, must be a far superior, finer, more penetrating process than the sense-perception-clogged reasoning of intellect.

But if imagination could take its cue direct from *intuition*, which undoubtedly is a first hand interpretation of superorganic impressions, then it is conceivable that we may get as much finer results from intuition as the purpose of human love and aspiration is finer than the inexplicable phenomena produced by the instincts of organic sexual attraction.

As the idea of Platonic love succeeded the "golden cup of Babylon that made the whole world drunk," and some old Greek poet personified the pure soul under the name of Psyche, so from the wonders of sexuality I pass to the personifying of that INDEPENDENT INTELLIGENCE which is back of all instincts and intuitions, and superior to them as well as to intellect. (It is to make this thought vivid and graphic that I attempt to personify that majestic and unknown force in life, under the name of ELLU). To suggest in the briefest and most general way, the probable physical source, as well as bent of mental characteristics in one's differing personalities—(other than the independent, conscious, co-ordinating, central self), let us say that one is pre-eminently female, and another pre-eminently male, I mean *in methods of thought*. To man of woman born, nothing could seem simpler or more logical. And in verity it has for its support the fundamental psychophysiological facts that no man is one hundred points masculine and no woman one hundred points feminine.

That is to say, every man possesses a latent female streak in his personality, and similarly every woman has a latent male streak in her mental make up. This is a perfectly legitimate biologic conclusion since in the science of embryology it is seen, that at a certain period in the beginning of individual life, the two sex principles are at an exact balance, which splits on a hair line, as it were, when that mysterious force which decides the question of sex in the embryo has not yet made its purpose apparent.

When we find in the same individual, on one occasion a tendency to assume a mood of cold and critical intellectual analysis, and on another, an exalted emotional mood possessing the keenest and swiftest kind of *intuitional power*, we know that these widely different moods can be traced to a legitimate physical basis. In all ages intuitional insight, as a special power of the mind of the female, has been remarked. Unfortunately, in the vast majority of cases, there is a blind acceptance of the changed *mood* as a commonplace event, not meaning anything in particular, and a consequent forlorn stupidity that misses entirely the tremendous significance in the bare *fact* of a mood that reaches such inexplicable powers of lightning-like perception of truth, as are known to come sometimes, *to most anybody*, in a state of abstraction, and especially to great geniuses, women, and idiot prodigies in mathematics, amazing examples of which I quote in another place.

Happily, on the other hand, the "great spiritual unrest," which we hear so much about as characteristic of this age, may be taken as evidence that increasing numbers of the human race are beginning to "find themselves," but without, as yet, quite suspecting that it is the potentiality of a mood that is doing it. But to indulge, as some do, in speculations and wild guesses that certain inexplicable psychic phenomena, may mean the slow evolution of a sixth sense, is entirely beyond the warrant of science. There is no evidence of any such evolution. There is, however, good evidence that prevision is an attainable scientific possibility, with sensation conditions just as we find them now, with no taint of "occultism" in it, however,

"Magic," as a great philosopher said, "and all that pertains to it, is but a presentiment of the powers of science."

It is a very significant fact that it is a force proceeding from the emotional side of life, and never from a premeditated intellectual effort, that gives rise to most if not all of the inexplicable phenomena of prevision and clairvoyance, and those mysterious *impressions* which provoke mental pictures of true conditions at great distances, of which last the Stanley incident is an example. So there are reasons for believing that this powerful faculty functions in or gives its stimulus through the red element rather than through that which is typical of the intellect—the grey. It is known as a physiological fact that the feelings and the emotions influence strongly, if they do not absolutely govern *the nature of the secretions* of the glands. So the human “home” of this mysterious unknown force which I have personified, is notably in the circulatory system. The tint of ELLU is red. His symbol is the heart. It is conceivable that it is the province of this unconscious co-ordinating intelligence to open the way to hidden knowledge through intuition: That it must be the superorganic intuition which gives to scientific imagination its starting clue, and thus makes that noble faculty of the mind the powerfully *intermediate* instrument of intellect and science that it is.

Emerson expressed this thought somewhat differently in his famous dicta about the *soul* knowing all things, and about trusting your instinct to the end. Desiring to avoid the mental stumbling blocks of the old terminology of transcendentalism, and the opprobrium that attaches to instinct as a “low” faculty, (outrageously inappropriate and wrong), I preferred to adopt the simple term, Independent Intelligence, to designate those unknown obscure, but marvelous powers latent in human life.

IN his conclusions to a recent book on the Oracle of Yahveh, Dr. Paul Carus says, “All divination of primitive mankind is based upon the supposition that the world is regulated by law and that all existence forms a system that can be represented in symbols.” After all it is to the “fabric of nature herself,” to quote the noble words of Harvey, that we must resort for any hint of specific ways and means that nature may have provided in the organic mechanisms of mankind, for applying an operative

psychic code of symbols, as a mechanical intervention between the intuitional powers and the sensation machinery of consciousness. For as Professor Mach says, "the province of psychology can be reached from the facts of the physical world—especially the *adjacent province* of sense perception." (The italics are mine.) The most significant hints possible seem to be easily found in the fabric of nature herself, for instance, within the mechanism of the eye, where hundreds of thousands—yea to out with the whole truth—where in fact millions of fibres, rods and cones,—little fingers, as it were, feel out colors. Certain ones of these deft little fingers can each feel out a certain shade of color from amidst an infinite variety, while for other shades it has no responsive "touch" whatever. So also certain others feel out those infinitely small, inexpressible differences of configuration, that makes personality in the faces of our friends, as well as the endless variety of objects, near and far. Other sensitive fingers figure out with lightning calculation, distances, relative sizes, depths,—for they literally have the laws of perspective "at their finger ends." Every finger of that innumerable host faithfully reports its "find" to the appropriate cell of consciousness, and the bewilderingly complicated mechanism of sense perception there records it, on an assigned spot as it were, on the memory chart of the brain; where also it has been provided that "association" is the magic key which shall at any moment light the way again to that particular spot.

This is exactly the method followed in the Oracle of ELLU.

Again, another hint is found in the more profoundly mysterious mechanism of the ear, certain parts of which provide for a corresponding psychic code or tone sensation arrangement, on the great memory chart machinery of the brain. Imagine a miniature harp in the ear and you get a symbolic idea of the probable purpose of the fibres of Corti. Everybody knows that certain piano strings will respond with vibrations, to certain noises outside the piano. A well known fact in physics. We have all heard of a "harp of a thousand strings," as an extravagant flight of imagination, but everyone is carrying around in the ear, a veritable harp with three thousand strings, all nicely arranged, short and long, for high and low, attuned to respond to

all sorts of noises in pitch and tone. And yet with three thousand strings, we know there are actual sound vibrations in nature that never succeed in getting reported by that wonderfully responsive harp in the ear, to brain or conscious sensation. So however great the capacity of the ear may be, there is at least a limit to the corresponding responsive psychic code arrangement in the brain. Likewise we know that there are "ultra" rays, the mysterious and astounding powers of which science is only now beginning to guess at, which even the millions of color feeling fingers in the eye cannot single out for brain sensation perception — There are rays therefore to which we are utterly blind.

But the rays exist.

The ear has to do with more profoundly *psychic* mysteries than the eye. The keenest intellects of all history had sought in vain for thousands of years for the causes of consonance and harmony, which are even now but imperfectly understood. The nearest approach to a scientific explanation was made by Helmholtz; a popular idea of which is obtained by assuming that the fibres of Corti are veritable musical strings which have the property of responding to certain tones and overtones, while remaining absolutely deaf at will as it were, to every other sound. In this province of consonance and apparently mysterious "sympathies" with numbers — (twelfths, octaves, fifths, thirds), the bewitching mysticisms of Pythagoras was most strongly entrenched. A mysticism which has never ceased to find responsive chords in the human breast, even down to and through this present materialistic age, so entrancing has always been, and perhaps will forever remain, the spell in the magic power of NUMBERS.

There is another subtle principle in nature, which next to numbers has been most prolific in the working of spells and miraculous wonders. This is the principle of LIGHT. Even modern science succumbs to the seductions of these combined powers, when, testing its long honored theories by the velocity of light, and sensation measurements of motion in Time and Space it startles the world with a new theory of "Relativity." A theory which demolishes the old molecular, mechanical interpretation of nature, and which is denounced as "monstrous" by the departmental advocates of the old ideas.

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Now in regard to the scientific possibility of direct psychic communications, it is clearly and logically a question of a working code. We are compelled to admit that humanity can scarcely feel proud of its *modern* achievements in that direction. Negative results are, as I apprehend it, due to the fact that in the great majority of premeditated experimentations, one party to the communication is almost always a dead one, physically at least. One of the parties only being alive and alert. So our ghosts continue to wear, sadly but resignedly, such ludicrous shackles as "raps" and planchette, automatic writings and "cross correspondence." In this vain effort no one has yet in the least succeeded in suppressing the fatally preponderating element of the personal equation of the brain mechanism intellect of the "recipient," or live operator, however sincere the effort, or free from *conscious* fraud the result may be.

The problem then is to invent an *automatic* code, as it were, which shall not only absolutely shut out the meddling personal equation and *will* of the living operator (in case it should be after all a disembodied spirit that is seeking to communicate), but also allow at the same time the INDEPENDENT INTELLIGENCE of the living recipient, free and full swing, (in case it should turn out that the surmise in that direction touches the source of either superior or spiritual wisdom). The problem of stopping "leaks" in a wireless system is no comparison. And though the word impossible is no longer to be found in the glossary of biology, and communication with spirits of the departed may be a plausible expectation, for some minds, that expectation is entirely beside the present question. So also is supposititious thought transmission from one individual brain mechanism to another, as is supposed to happen in the theory of telepathy. The present idea is the possibility of a working psychic code, based essentially upon the acknowledged *existence* of that unknown obscure power of the human mind, that Independent Intelligence which "knows all things," and which I have sought to personify under the name of ELLU, which at times of great peril and sudden emergencies, has been known to seize complete control of the motor activities and to avert death and disaster thereby,—The application of the code to be between one's own Independent Intelligence and one's own conscious reason.

It may well be claimed that the greatest thing in the world today, at the dawning of a new age of idealism, would be to establish a scientifically operative psychic code, for communication between one's own personalities. And perhaps the most striking proposition possible to formulate in language connected with that idea, is expressed in the following nine words:

There was once such a code known on earth.

Whatever its origin, the operation of the powerful oracle of Aaron's breastplate, probably the most perfect and scientific oracle the world has ever seen, depended upon the mystic, yet practically *applicable* principles of *light* and *numbers*, which, likewise, are the principles by which the Independent Intelligence operates the ORACLE OF ELLU.

AFTER all is said and done, we are compelled to admit that there is some amazing and mysterious power in human life that plays upon the wonderful organic mechanism of the mind in abstraction and dreams, as a master musician plays upon the keys of a piano. But in a way as utterly unknown to consciousness, as the way of a great musician would be unknown to a possible listening savage. Nothing can be more sure than that this marvelous power does not proceed from the mind; because the mind itself is as much the product of the brain organism as the music the savage heard was the product of the piano. That power must reside in the *Intelligence* which first constructed the organism that gave birth to the human reasoning mind.

It is a well known biological fact that the intellect of the child develops only with increasing numbers of nerve cell *connections*. But it is also as well known to common sense observation, that the veriest child reaches conclusions without reasoning at all, that confound science in their astuteness. It is not enough to dismiss that fact as coincidence, or to say, "oh the child just *happens* to say wise things *instinctively*,"—the trouble being that when that excuse is given, instinct is merely considered as an outgrown and obscure faculty of the mind. Now that is the very fallacy I would expose.

Only the other day, while on a railroad train, a little child with its mother occupied the seat just across the aisle from me.

Presently the train passed along a mountain side, down which a foaming stream was plunging. The child was not over two and a half or three years old. It had greatly amused me with an incessant fire of questions. When the little mountain stream came into view, this followed:

"Mama, where does water come from?"

"I don't think anybody quite knows, yet, my dear; but perhaps you will when you grow up."

"Huh! *I* know now: it just comes right out of nossin at all."

Just then a train man lighted some lamps in the car, which, soon after the train had passed through a tunnel, were extinguished, when the little voice piped up:—

"Mama, where did that light go to when he put it out?"

"I am sure I cannot tell you that my darling, for I do not know."

"But *I* know, mama, 'twas *somefin* just stopped going *anywhere* awful quick." (with a strong accent on "somefin" and "anywhere.")

Probably the scientist is not yet born who can improve upon those two answers. Certainly the answers of modern science concerning HH O, ultimate substance, and velocity of light, are astonishingly parallel. Presently another self answered question gave something of a clue to the manner of operation of the child's *instinctive* power of *divination* — since this one approached nearer to a process of reasoning: A pasture with cows came in sight.

"Mama, do oo know 'er name of 'at cow way over 'ere?"

"I am sure I do *not* know, deary."

(The child, decidedly vexed)—"What is er *weson* oo don't know her name, mama? She's *got* a name, ain't she? an' I know it."

"Do you? well what is her name?"

"It's belly cow. Don't oo see er bell wound her neck?"

By this time it was perfectly evident that the mother's mature *intellect* could not match, or keep pace with the child's swift and unerring readings of inherent *symbolic signs*. The child's imagination, which is most decidedly *not* an exclusive faculty of mind, (as I shall presently attempt to show in the annexed tab-

ulation scheme), but is equally akin to intuition, a faculty of the other province of life, was, in fact, playing upon the child's unconnected and undeveloped brain mechanism of mind—but *in its own way*.

By way of antithesis, it will be admitted that Bernard Shaw is probably one of the most brilliant writers of this generation; and yet, with his ripe intellect, cultivated to the very highest notch of fecundity, he is not so keenly exact and close to the truth in his studied phraseology, or so deep in his philosophy, as the baby we have just heard. In proof, listen to this from the *Review of Reviews*, which I had been reading while listening to the prattle of the child. (Apr. No., 1911, pp. 427-8): "The pleasures of the senses I can sympathize with and share" (says Shaw); "but the substitution of sensuous ecstasy for intellectual activity and honesty, is the very devil." Which goes to show that so astute a thinker as Shaw himself, did not see the inherent fallacy in that beautiful piece of fine phrasing. It is the same fallacy which ever attends all thinking upon that subject, which fails to take account of the fact that intellectual honesty itself compels recognition of the truth that *mind and intellect are themselves but products of the senses*: that the greatest joy of a great writer's life is sensual ecstasy in the most literal sense of the words.

The proverbial "supremacy of mind over matter" is one of the most monstrous of the mind's own delusions. The very reverse of this is nearer the truth. To confound the mental with the psychical, or to regard imagination as essentially or peculiarly a mental product, is to befog all philosophies, and render all conclusions concerning "life" and psychic phenomena, confused and indefinite, or worse.

The three angles of a triangle, however similar they may be, are essentially separate identities in space; else there could be no such figure as a triangle. Without this principle of *separation* of boundary points, a triangle is inconceivable. Now these three angles are no more distinctly individualistic in their mutual relationships, than are *soul*, *intuition* and *intellect*, in outlining human "life." So there can be no definite personality conceived of until the three essentials, soul, intuition, intellect, stand

apart, each in its own proper place. Yet strangely enough, the most common mistake even among noted thinkers, is to merge and blend these three essentially separate things into a shapeless and misty something which is vaguely labelled *mind*. If I draw a triangle and write under it this outlined area is rectangular, it is instantly perceived that the label is false on the face of it. But if I rub that false label out and write at the apex angle the word *soul*, and at the lower angle on the left, *intuition*, and at the angle on the right, the word *intellect*, and then in large bold letters mark the whole figure MIND, how many would as quickly perceive that this label also would be as inherently false as the other? This, in effect is exactly the common practice today.

For me, a clearer apprehension of the essential differences that *must* exist between these three, and other human faculties—as classified in the annexed tabulation, as well as a better understanding of the independent and superior nature of soul and intuition, as compared with mind, intellect and judgment, is given in this tabulation, than can be obtained in any other way. For instance, if Professor Freud's conception of the operations of the "*unconscious*" as composed of the activities of two "*layers*," both below the "threshold of consciousness" the lower of which is now being heralded in popular print, as his "discovery of the lowest chamber of the soul," be confined wholly and strictly to the province of the mind, and *not* be used as in any sense applicable to the soul or any "chamber" of it, very much less confusion and contradictory vagueness would result. To me this queer confounding of the *mental* and the *psychical*, as if they were all the time the same impossible thing playing hide and seek with itself, above and below an impossible "threshold," is meaningless and absurd. Perhaps I may be very wrong and obtuse. But having found so much satisfaction in considering *intellect* and *intuition*, as belonging to two very distinct and separate provinces of "life," I herewith present my scheme of tabulation with the following comment:

The foregoing crude "basting threads," bungling as they are, and the following tabulation of faculties, are intended to illuminate the obscure fact, that the province of the MIND comprises very little more than the province of the WHEEL; and that ad-

ditional little, is furnished by the powers of that faculty which we call imagination. While the province of INSTINCT—which draws imagination over into touch with a still higher power, is the province of the ORACLE. The wheel and the oracle being here merely symbolic of the mind, and the individual independent intelligence, respectively.

Also, that even as the mind is superior to that particular application of *energy* to an arrangement of wheels which we call a clock (which strikes the hours of the day and the night while the mind may be busy or asleep), so is instinct superior to that peculiar application of specific energies, to countless cells and fibres which we call “brains,” whose amazing mechanisms make thinking possible and constitute the phenomenon which we call mind.

Mergenthaler’s mind made the linotype, that marvelous machine that can almost talk, as we say: but primeval instinct first made Mergenthaler’s mind possible.

The limit of the human mind is the limit of those mechanical principles which were applied in the construction of a material brain mechanism—with this saving clause,—*plus imagination*.

Edison’s mind was such a master of the resources of mechanical principles, that *he* transcended others and made a machine that actually *did* talk: but primeval instinct first built the brain machine that made Edison’s mind possible.

So, in considering the possibility of divination, we are but considering the possibilities that exist in those subtle principles of mechanics which Instinct used in constructing the bewilderingly delicate mechanisms of the sense organs of the brain.

Imagination, which is probably the direct product of that “organ of interpretation” which Professor Mach finds evidence of as existing, is the mind’s connecting link to higher forms of energy. It is probably this which makes the human mind itself superior to sense organ perceptions, inasmuch as it has discovered the existence of such things as “ultra” rays, which are imperceptible to the senses.

The Tabulation

Which forms the basis of the argument that *mind* and *intellect* are perishable and inferior to the INDIVIDUAL INDEPENDENT INTELLIGENCE, (III—ELLU) ; and shows distinctions existing between the various faculties of the TWO PROVINCES of human life, under BIOLOGIC ENERGY and SUPERORGANIC ENERGY, and their possible relations to the source of all energy, through the SOUL. Making it clear that annihilation of mind need not affect IMMORTALITY any more than its ruin by insanity destroys bodily health. (Not theological.)

ENERGY

OVER ALL IS THE UNKNOWNABLE ENERGY

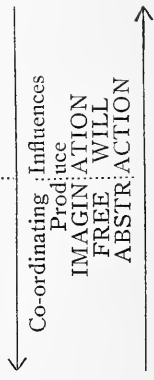
GOD

TRUTH



Province of
SUPER ORGANIC ENERGY
 the highest product of which is the
 PSYCHICAL
 Faculties of Human Life as below.

Province of
BIOLOGIC ENERGY
 the highest product of which is the
 MENTAL
 Faculties of Human Life as below.



III — ELLU (INDIVIDUAL INDEPENDENT INTELLIGENCE)
 LIFE (Vitality)
 INSTINCT
 INTUITIONS

MIND (The known or conscious self)
 REASON
 INTELLECT
 JUDGMENT

FAITH, HEALTH, HAPPINESS, IMMORTALITY. (symbol red)

DOUBT, DISEASE, INSANITY, SLEEP, DEATH (symbol GRAY)

SENSATION

By Direct IMPRESSIONS

Representative Instances

- Pewabic Mine
- Agassiz Dream
- Zerah Colburn
- Jed. Buxton
- Titus Case
- Stanley Case
- Visions
- Ecstasy
- Prayer
- "Miracles"
- PRESENTIMENT
- NUTRITION
- SECRECTIONS
- CIRCULATION
- STRENGTH
- IMPULSE
- FEELINGS
- EMOTION
- LOVE
- INSPIRATION
- ASPIRATION
- "INNATE IDEAS"
- FORM
- PURE MATHEMATICS
- "LOGIC OF RELATIONS"
- PRESCIENCE
- DIVINATION

The ORACLE

(as symbolizing the concrete result)

By PERCEPTIONS indirect and imperfect

Representative Instances

- Blue Apple
- Mouse-Insect
- Deer — Spider
- Buffalo — Gnat
- Ghosts
- Levitations
- Raps
- Auto Writing
- Dissociated Personalities
- Hypnotism
- Suggestion
- CONSCIOUSNESS
- MEMORY
- SPEECH
- SPACE
- TIME
- GEOMETRY
- POETRY
- LITERATURE
- ART
- HALLUCINATION
- ILLUSION
- SUPERSTITION
- MAGIC
- CHANCE
- LUCK
- THEORY
- SCIENCE
- PHILOSOPHY

The WHEEL (C Q D)

(as symbolizing the concrete result)

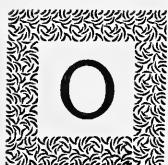


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C. H. Emerson.

NOTE:—By virtue of the faculties of this province, we know or do a thing without reference to sense perception, but by *living* it and *experiencing* it.

NOTE:—By virtue of the faculties of this province we know a thing only as we "sense" it—as one sees the moving picture of waves breaking upon a *small* piece of an endless shore.

The Oracle of Aaron's Breastplate.

F the three ways of divination enumerated in the Bible (1 Samuel 28: 6) viz: by dreams, by Urim and by prophets, it is noticeable that the one which sacred scripture itself dignifies with a capital, is that which is identified as the Oracle of Aaron's Breastplate. The other two methods are elsewhere discussed where the classification is as follows: 1. Direct and strictly personal, as in dreams, intuitions, presentiments and the like; 2. Indirect, but personal, aided by instrumental intervention, as by the flipping of a coin, casting lots, or by Oracle. 3. Indirect and impersonal. That is, by the intervention of *another mind* mechanism, as in clairvoyance, "second sight," and the like.

The present discussion concerns only the Oracular method of divination, and specifically the Oracle of Aaron's Breastplate. Of all the myriad ways and devices for *instrumental* aids to divination, from the remotest antiquity down to this twentieth century, the one method which has stood unapproached, above all others, is the mysterious Urim and Thummim of the ancient Hebrews.

Yet, in conversation on various occasions on the subject of oracles, I have been surprised to find that many people, educated people too, had not the slightest idea as to what was meant by Urim and Thummim. It, therefore, may not be amiss to start with a somewhat general definition. It was the *instrumental* Oracle of the high priest of the Jews. The origin of our knowledge of the existence of such a thing—or things, for it was plural—is the sacred scriptures of the ancient Hebrews—our Bible.

The most striking thing about the Bible account is its meagreness of description compared with its high importance. As if it was a thing so well understood by all the people, that no details were necessary. This fact is especially striking because on the other hand, the scripture goes into the minutest details with reference to the peculiar and "cunning" construction of the articles that were the *invariable accompaniments* in the use of the Urim and Thummim as an infallible Oracle. Read the twenty-eighth chapter of Exodus where this verse occurs: "And they shall make the ephod of gold, of blue, and of purple, of scarlet and fine twined linen, with cunning work."

I make no pretensions whatever to scholarly attainments, and do not presume to call in question the profound conclusions of the many noted authorities who have wrestled with this mystery. I would only note that after all their searching and exhaustive philological work and acumen, their strange omission to take into serious account the "*cunning work*," so profusely described in the scriptures. For therein, it seems to me, is the solving of the enigma, at least, as to the secret of the *practical* mechanical principles involved in its use, as we shall see later.

To come back to the general definition, the highest court for all difficult questions, was the high priest himself: and the highest oracular power of the high priest found expression through the use of the Urim and Thummim. How it was operated has been a baffling mystery down to the present time. The only part of that mystery which I shall attempt to solve is the mathematical and mechanical principles involved in its use.

The next highest authority to the Bible itself is Josephus' Antiquities of the Jews. But that is likewise ambiguous. Although Josephus himself was a high priest and governor of Galilee, his own significant words are, referring to the use of the Urim and Thummim, "*It left off shining*, two hundred years before I composed this work." (Vol. I, p. 202.) As Josephus died in the first century of the Christian era, that would indicate that at least two thousand years have passed since its efficiency as an oracle was recognized. One of the most significant points to be noted, is the tenacious persistence of the idea of a *preternatural lumi-*

nousness of the precious stones connected with the actual operation of the Oracle of Aaron's Breastplate.

Holding a seemingly immovable position among the disputed translations as to the inherent meaning of the two mysterious names of the oracle are those of "Lights and Perfections."

The Bible itself furnishes the strongest reasons for it. The oracle was the oracle of Jehovah (Yahweh); and Yahweh was the terrible God of Sinai and the lightning, and the thunder was his voice. "And Mount Sinai was altogether on a smoke, because the Lord descended upon it in fire." (Ex. XIX: 19.) With our present knowledge of the lightning one can almost fancy in the descriptions of Yahweh a prescient conception of the nature of electricity. "Who coverest thyself with light as with a garment . . . who maketh his angels spirits; his ministers a flaming fire." (Psalm CIV.)

"And when the angel of the Lord appeared to Moses on the mountain side, the bush burned with fire and the bush was not consumed." (Ex. III: 2.) So dreadful was the nature of this Invisible Power, that its very presence killed. Read the extreme precautions that Moses was directed to observe to save the people from being blasted by coming too near, read the nineteenth chapter of Exodus, from the 11th to the 21st verses.

Indeed, throughout the Bible record there is the most abundant evidence, that no other idea was more firmly fixed in the minds of the children of Israel, than the affinity of their god for fire or *Light*—especially as a sign, or *as an expression of his presence*. So it need not come as a surprise, though it is luminously significant as we shall see, that the Hebrew word for the Oracle of Yahweh, (אֲדָמִים) *urim*, should itself signify "fires" (*being in the plural*).

The probable error of Renan in assigning the origin of the Urim and Thummim to Egypt, is made apparent by the scholarly researches of Muss-Arnolt, to which further reference will be made. Nevertheless Renan's conclusions regarding the *nature* of the ancient oracle are not without interest. He was inclined to think the objects themselves were two of the winged discs, so common on Egyptian and Phœnician monuments, which the

Israelites copied; using therewith two little images of Yahweh, which they called *urim* and *thummim*. He was able under this hypothesis to account for the word *urim*. "The other, *thummim*" said he, History of the People of Israel, Eng. Trans. (1888, Vol. I, p. 224), "a word the meaning of which, when thus employed, completely escapes us."

"These figurative images of Yahweh were called *ephods*, like the robes of the Levites. . . . The idolatrous object, formerly known under the name of *ephod*, was of metal on a wooden frame. It could not have been large, for it was easily carried in the hand. Beside, private individuals who were sufficiently rich had *ephods* made for them and used them for their personal profit. This *ephod* in fact, in addition to representing Yahweh, had a special use, that of being employed in divination and in oracles."

The Bible abundantly indicates that the *ephod* was an indispensable part of the mechanism of the Urim and Thummim.

"Nothing important," says Renan, "was done without the familiar genius of the tribe being consulted. But nevertheless, matters were not left to chance. With the Israelites as with the Greeks, the oracles were confided to the care of the wise men. What *we* should call imposture was then considered merely the faithful interpretation of the wishes of the tutelary deity. In the event of *urim* being employed, there was sure to be some fraud in the affair on the part of the Levites, who placed themselves, owing to their subordinate situation, in the hands of the chiefs of the people. Some skilful trick was played. The motive power remained invisible, and the divine *tremolo* had all the appearance of spontaneous production.

"*It has never been ascertained by what mechanism the oracle was rendered.* Some have supposed that a chess or backgammon board was used and that *urim* and *thummim* were dice. This theory is not inadmissible . . . Perhaps the two *uracus* of the winged globe, meaning, one yes, the other no, were put in motion by a spring concealed behind the disc. It was naturally the priest who worked the instrument and who replied to the questions."

It is explained that in Egypt, the god who was consulted, replied sometimes by motions, sometimes by audible sounds, and that "These conjuring tricks were performed by means of complicated mechanism." "We see," continues Renan, (p. 230), "that nothing is more obscure than the apparatus by means of which Yahweh was consulted; nothing is more certain than the *fact* of this consultation itself. . . In every difficulty which arose, the authorities went and interrogated the oracle of the ark—(urim and thummim) and the oracle answered. . .

"The most characteristic sign of the rich and elaborate costume devised for the high priest, was a large breastplate composed of twelve precious stones, on which were engraved the names of the twelve tribes of Israel. Without explaining matters as clearly as it might do, holy writ confounds this breastplate with the ancient ephod, and places there, in a rather obscure manner the *urim* and *thummim*. Perhaps the upper part of the breastplate contained the winged disc and the *uraeus*. This is what was called the oracle."

The author quoted concludes that the growing spirit of prophecy brought about the desuetude of the old instrumental oracle, so that finally the use of the *urim* and *thummim*, "came to an obscure end. In the fifth century B. C., it was not clearly known what the *ephod*, *urim* and *thummim* were."

"All analogy, it will be seen," concludes Renan, "leads us to look for the origin of *urim* and *thummim* to Egypt."

The New International Cyclopedia says,

"An entirely satisfactory explanation of the mysterious names, (Urim and Thummim) has not yet been furnished"—in the following connection of ideas:—The name given to the two objects, perhaps pebbles or stones, says the Cyclopedia, in the shape of dice, kept in the oracle pouch that hung upon the breast of the Jewish high priest. They were used to obtain an oracular decision revealing the divine will. While we do not know the precise manner in which this decision was obtained, analogy from similar customs among ancient nations makes it probable that the stones were drawn by lot out of the pouch, and, according to the one drawn an affirmative or negative answer to a question was given. An entirely satisfactory explanation of the two mys-

terious names has not yet been furnished, but all the evidence points in favor of a connection with two Babylonian stems (*u uru* and *tamu*), from which are derived *urtu* "decision," (used chiefly of oracular decisions), and *tamitu* "oracle," which occur in the religious literature of Babylonia. The early explanations such as "light" and "perfection," or "light" and "truth," (Luther's view), are generally rejected as purely fanciful, by critical scholars who hold that the use of the Urim and Thummim belongs to the realm of primitive religious rites, and that its persistence to so late a period as that of the compilation of the priestly code (Ex. 28-30), is due to the strong hold it had taken upon the imagination of the common people.

Still, in spite of this general rejection by critical scholars of the idea of luminousness, the Century Dictionary gives its definition as follows:

"The true nature of the urim and thummim (literally 'lights and perfections') is not known. They seem to have been small objects kept inside the so-called 'breastplate' which was folded double, and many authorities believe them to have been precious stones or figures, used as lots or otherwise. There is no indication of their use after the time of David, and after the captivity they are alluded to as lost."

Rev. John Stanford, M. A., related in an address to a Masonic Lodge at Mt. Pleasant, N. Y., December 27, 1800, on the authority of The Talmudest, how King Josiah hid the Urim and Thummim under ground in a cave, before prepared by Solomon, together with the anointing oil, the ark of the covenant, Aaron's rod that budded, and the pot of manna, and that therefore these things could not be found after the return of the Jews from captivity at Babylon, and that no Jewish priest has since ever been in possession of them.

"And the Tirshatha said unto them, that they should not eat of the most holy things, till there stood up a priest with Urim and Thummim." (Neh. VIII: 65—Ezra II: 63.) Hastings Dictionary of the Bible (1902), says, "From this it is manifest that the use of these mysterious objects was unknown to the Jewish authorities of the post exilic age."

As an instance of the curious vagaries growing out of this persistent tradition of luminousness, perhaps involving colored rays as an inherent quality of the oracle, I quote C. W. King, M. A., the great authority on gems. He relates in his book, *Natural History of Precious Stones*," (p. 326), "My record of sacred jewels would be sadly incomplete did it close without a few words concerning that most ancient and most *virtuous* of them all, being at once decoration, periapt and talisman—, Aaron's Breastplate. It was a *decoration* from the costliness of its nature; a periapt (amulet) for it was suspended round his neck by golden chains, a *talisman* for it insured the divine protection to the tribes whose names were thereon engraven. . . .

"Epiphanius, following some ancient tradition, records that when the Jewish high priest entered the Holy of Holies, he wore suspended *over the breastplate*, the Urim and Thummim. This was the *Adamas* of a cerulean color (our sapphire) which by its *change of hue* declared the favor or the wrath of Jehovah towards his people, for it turned black as night before a coming pestilence, red as blood before war, but shone bright and blue when it announced coming prosperity. Of this important jewel, the very soul, so to speak, (if we credit Epiphanius) of the entire Rationale, neither the Pentateuch nor Josephus make the least mention, as an adjunct, altogether distinct and superior to the breastplate itself; but notice of it preserves a tradition of the original nature of the appendage."

It is my belief, for reasons stated further on, that if by great good fortune the hiding places of those magnificent jewels are discovered, it will be found that their engraving will disclose a numerical significance. That they may yet be found is not at all impossible. On this very point, King further says (p. 331), "It will sound incredible to the ears of the uninitiated, yet every one conversant with the nature of gems will admit that these most venerable productions of the glyptic art, must still be in existence and in all their pristine splendor. No lapse of time produces any sensible effect upon these relics, as the perfect conservation of such in softer material—mere vitrified clay—proves; for we have abundance of tablets bearing the title of Tothmes

III, the contemporary of Moses himself. Besides this, their intrinsic value as the finest gems that could be dedicated by the zeal of a race trafficking all over the world must have caused them to be esteemed the most precious of trophies, to be guarded with the most jealous care by all the conquerors into whose hands they successively fell. Even supposing them extracted from their primary arrangement and reset amongst the other State jewels of their captors, the essential portions of the stones with their inscriptions would still remain unchanged.

"Perhaps this was the reason why the *Rationale* is not to be found in Ezra's list of articles restored by Cyrus to the temple of Jerusalem— . because according to practises of the East, they had all been placed as offerings and trophies in the grand temple of the Babylonian Belus; it is certain they, during those seventy years, had still remained hallowed by sacred usage, for their profanation for the first time by Belshazzar, is assigned as the deed that filled up the measure of his iniquities." . . .

Josephus states distinctly that all the stones of the Urim and Thummim, at least those of the Breastplate of Aaron, were very conspicuous for their size and beauty and inestimable value.

"The Breastplate described by Josephus," King continues, "was carried to Rome along with the other spoils of the Temple, upon the destruction of the holy city of the Jews by Titus. The magnificent Temple of Peace, just erected by his father, was the place selected to hold these trophies after they had been paraded in his triumph through the streets of Rome.

"Of their subsequent fate there are three conflicting accounts. The first, that they were sent off by Geneseric to Carthage upon the sack of Rome; but that the ship with them on board was lost on the voyage. But some, at least, if not all, must have fallen into Alaric's hands when he sacked the city some fifty years before, if there were any foundations for the belief mentioned by Procopius. He states that the main reason why the Franks in the sixth century, pressed the siege of Narbonne, the Visi Gothic capital, with such eagerness, was the being there deposited, the treasure of King Ataulphus; which boasted amongst its other incalculable riches, vases formed out of Emeralds—(*prasini*,—he uses the contemporary Latin term for the *pre-*

cious kind)—made of old time for the use of the Temple by King Solomon.

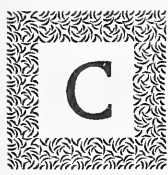
“The third story rests on better authority than either of the preceding. Procopius, an *eye-witness*, states that amongst the innumerable spoils of Carthage, carried in his Vandalic triumph by Belisarius through Constantinople, *were the vessels of the Temple of Jerusalem*, formerly the prey of Geneseric.” (Bell. Vand., XI, 9.)

Justinian deposited them in the sacristy sta, Sophia; but hearing of a remark made by a Jew, how these spoils brought ruin upon all who presumed to detain them from the place for which they had been made, being struck with the fear of the sacrilege, sent them off with all possible despatch to the Christian Church of the Holy Sepulchre of Jerusalem. In this case, they must have soon after, fallen into the hands of another Persian conqueror, Choraes II, when he took the Holy City in 615; and abundantly verified the Jew’s prediction by the speedy destruction they brought upon the Sassanian dynasty, extinguished in blood, A. D. 632. Hence there is good reason to suppose them still buried in some unknown treasure chamber of one of the old Persian capitals, and to have a chance of emerging from oblivion at no very distant day.

“What a day of rejoicing, both to archæologists and to the religious world, will the identification of one of these sacred monuments occasion; a contingency by no means to be thought chimerical in an age which has witnessed the resuscitation of Senacherib’s signet, of his drinking cup, and of his wife’s portrait.”

The Oracle — Continued.

More Modern Research.

OMING down to our day, the latest and probably highest authority, as well as most generally accepted theory among scholars is that of W. Muss-Arnolt, published in the "American Journal of Semitic Languages and Literature," (July, 1900). At least it is true, that the latest great reference works, among them the Jewish Encyclopedia, adopt Muss-Arnolt's conclusion as authoritative. These researches by Arnolt (referred to on a former page as making Renan's error apparent in assigning the origin of the ancient Hebrew Oracle to Egypt) traced the origin of the words Urim and Thummim to the Babylonian words *urtu*, meaning "command, decision," and *tamitu*, a synonym of *piristu*, "oracle, oracular decision" (mostly of the gods).

Muss-Arnolt modestly refers to his work on the Urim and Thummim, as "A suggestion as to their Original Nature and significance;" then threads his way through thirty-one closely printed pages of the "Journal," with such a masterly abundance of world-wide references in many languages, dead and alive, (which I am in no manner of means qualified to follow), that his conclusions are well nigh irresistible. Yet, with that modesty characteristic of the scholar, he says, "I may be wrong; if so, let us begin over again; and may some other student be more successful."

"I long ago came to the conclusion," says he (p. 211), "that the mythical account of the *Tablets of Destiny*, as found in the Babylonian account of the creation and the legend of *Zu*, and the

Old Testament Urim and Thummim, both shaping the destiny of king and nation, *revert to the same fountain head and origin.*" Not necessarily implying that the Jews got their ideas of the oracle from Babylon, but that both Chaldeans and Jews got their ideas of it from a common source more ancient than either.

To get the right idea of this great scholar's conclusion, we must, in the first place, rid ourselves of a childish prejudice, similar to that which has been more or less nurtured even within the last century, that as between two religious sects for instance, one has the only right passport to heaven, while as to the other—oh, well, the less said the better. I have noted in my limited reading, that Muss-Arnolt's position seems almost unanimously endorsed among scholars; viz., that the *origin* of both Babylonian and Hebrew sacred traditions was from the same common source; so that it is simply puerile to suppose that as between two villages or cities in the same country, dwelling side by side as it were, one would necessarily be a sink of iniquity and its gods all demons of corruption—the spawn of hell; while the other was all that was pure and beautiful and a "primitive" cradle of holiness.

Ur, (Our-Casdim) and Babel, (Borsippa) were two cities of Babylonia, near together. Ur, with its mythical king, Father Orham, (Abraham?) had the oldest known Babylonian dynasty. It is supposed to have been the first centre of Chaldean civilization. Little cylinders and clay tablets, bearing cuneiform inscriptions, tell the tale of its patriarch kings. The huge pile of bricks at Borsippa still mark the spot of that wicked city's "insult to God."

Now it is a fact well known to scholars that a part of the names of divinities often entered into the proper names of persons. Any family or individual who had Bel or Baal as a part of its name, would be considered pagan in their origin, (as to name) beyond all question, so with Molock—Meleck or Milic as sometimes spelled. But we read in Gen. 11: 29 and 31, how Abram and Nahor took them wives before they "went forth with them from Ur of the Chaldeans to go to the land of Canaan . . . and the name of Nahor's wife, *Milcah*, the daughter of Haran, the father of *Milcah*" Those verses of the Bi-

ble and the name of Nahor's wife, as Muss-Arnolt eloquently says, "tell the true story"—of a common and amicable relationship existing between Hebrew and Chaldean. In support of his conclusion as to a close relationship between the Hebrew Urim and Thummim and the Babylonian Tablets of Destiny, Muss-Arnolt asks (p. 212.) "Is it really beyond doubt that the earliest religious conceptions of a nation belonging to the same family as the Hebrews, and living at no time far from that people . . . must necessarily have originated from below, if I may be allowed to say so, must be mere human invention, while the other nation received its fundamental religious instruction from above by means of special divine revelation?"

"Is it not more probable that, from a common basis, there developed, in the course of time, among the Assyrio-Babylonians the belief in the *Tablets of Destiny* and among the Hebrews, the belief in that powerful oracle 'the Urim and the Thummim?' Notwithstanding the fragmentary account of Babylonian literature and the scanty report of Old Testament writers, we can yet gather some points common to both:"

In brief the five points which he mentions more at length, are as follows:

(1) Both the Urim and Thummim and the Tablets of Destiny, to be efficacious, must in either case *rest upon the breast* of the one operating it.

(2) The rightful possession and operation of both Urim and Thummim and the Tablets of Destiny was originally vested in a king or leader or high priest, as the direct lawful mediator between the nation and the Deity; first, to the god Anu in the one case, and to Moses by Yahweh in the other, "to whose decision, by means of Urim and Thummim, even kings bowed in obedience."

(3) In both cases, as their names Tablets of Destiny, and Urim and Thummim, (both in the plural), imply a number of objects constituted the oracle; while it is impossible to determine exactly their number, *we know there were more than one.*

(4) Both the cuneiform inscriptions, describing how Mar-duk tore the Tablets of Destiny from the breast of his dead foe

Kingu, and the Old Testament account of the Oracle of Aaron's Breastplate, refer somewhat mysteriously to the *letters upon them*, as of the nature of a seal. Marduk put the Tablets of Destiny on his *own breast* and "sealed them with his *own seal*." And in Exodus 28:21, the twelve stones of the breastplate were "engraved in the manner of a seal."

(5) In both cases these oracles were, strictly, *properly* consulted by their possessors on state occasions, and in matters of national import only.

"The very fact," says Muss-Arnolt, (p. 218) "that the Old Testament assumes that Moses and the people were familiar with and cognizant of the nature of the Urim and Thummim confirms, to some degree, my views concerning their early existence and original nature and significance." He still further fortifies his position, that the Urim and Thummim of the Hebrews, and the Babylonian Tablets of Destiny, were both derived from a common source older than either, with the usual scholarly thoroughness, by citing technical terms used in the ritual of both the Hebrew and Babylonian religion and cult, "which are either common to or borrowed, on the part of the Hebrew, from the Babylonian. This has been pointed out by many Assyriologists and students of the Old Testament." These technical terms, rescued from the ruins of Babylonia prove that the Chaldeans too had an institution of the passover, astonishingly similar in detail to that of the Hebrews.

It is not at all necessary to my purpose to recite or review, even if I were qualified or able to do so, the almost bewildering array of philological and other proofs, which he has arranged with such precision of purpose. *My* purpose does not even aim to establish how, or upon what mechanical and mathematical principles the oracle of Aaron's Breastplate *was* actually operated, but only to show one *practical* way at least, in which it might have been done; and have simply based my conclusions to *that* end, upon facts drawn from the rich fund accumulated by the host of able scholars who have fallen foul of this aggravating mystery armed and equipped and qualified for the contest.

These then, are the salient points established by universal consent of scholars:

(1) That both the words are *plural*. There was more than one object to each, whatever their number or nature. There is little or no authority for saying that there was only one of each, hence only two in all.

(2) That the *purpose* of the contrivance, as a whole, was its use as an *Oracle*; and it was so used, and gave appropriate and intelligent answers to questions.

(3) That it was infallible. Even Kings bowed to its decisions.

(4) That while the meanings of the original words from which Urim and Thummim were derived, are not literally lights and perfections, the practical use of the instrument itself, involved in some way the principle of *Luminousness*. As Professor Ludwig Blau says "The Talmudic concept seems to have been identical with the view of Josephus holding that the reply of the Urim and Thummim *was conveyed by rays of light*." (The italics are mine.)

(5) That the Bible narrative itself shows that the Urim and Thummim and Ephod, are absolutely indispensable parts of one and the same thing as an operative whole. "The Urim and Thummim are implied wherever in the earlier history of Israel mention is made of asking counsel of the Lord (Yahweh) by means of the *ephod*." (Muss-Arnolt, p. 198.)

(6) That the instrument is identified with the Babylonian *Tablets of Destiny*.

(7) That since the word Chaldean among their contemporaries, and long after, was a synonym for *mathematician*, it is probably a fact, at least it is fairly conceivable, that the Tablets of Destiny of the Babylonians had some hidden *numerical* significance.

(8) That the one on whose breast the Urim and Thummim reposed, invariably turned towards the shekinah — FACED THE LIGHT.

Upon these established points my conclusions and suggestions will be based. But before proceeding to make the suggestions explicit and definite, I desire to fortify my conclusions by some

further general discussion of the elements and principles involved in the construction and use of this most mysterious of all the oracles of the world. And so will proceed under a number of subtitles beginning with *Gems and the Glyptic Art*.

Gems and the Glyptic Art.

BY far the most prominent feature among the various parts of the operative oracle as a whole, was the Breastplate of the High Priest. Particularly because of the size and beauty and great value of its incomparable stones, probably the most magnificent jewels in the ancient world. The fact has been commented upon that the Jews' instinctive love and knowledge of gems, dates from a great antiquity, and that by reason of their deeply religious nature, they would most likely devote only the richest and best to sacred uses.

Precious stones seem to have possessed the deepest significance in the philosophy and mystic lore of all ancient peoples, especially of the Hebrews. Marked gems were possessed of peculiar talismanic virtue, so, the engraving of precious stones, the Bible itself shows, was developed to a very high degree of perfection at a very early period.

"According to Maimonides, Abraham ben David and other Talmudic authorities," says E. G. Hoffman in the Jewish Encyclopedia, "relief work alone was permissible in objects connected with sacerdotal service. For this reason as it was supposed, gems could not be worked in this way, in the case of the precious stones on the ephod and the breastplate, a miracle was assumed: The worm SHAMIR traced the letters which appeared on them." (Sotah 48 b.)

But it has been shown that this idea was clearly the invention of later scholars, to account for an anterior command of the glyptic art, which later ages had utterly lost, and which scarcely could be conceived as possible without miraculous in-

tervention. So we have the circumstantial story of Heraclius, who, as well as wielding the fearfully heavy hand of the most tremendously successful of the fighters of ancient times, also dipped deeply into mystic lore in his leisure hours. For in a most extraordinary treatise entitled *De Artibus Romanorum*, he tries to account for the, to him, miraculous fact that very ancient precious stones were found to exist with such exquisite perfection of engraving as to make them "altogether incomparably superior" to anything produced by contemporary art. He gives a recipe for softening the hardest of stones so that they could be easily cut into. The chief ingredient in this recipe is the *blood of earthworms*.

There were existing traditions that the ancient Egyptians knew and used a secret process to soften the stones they were about to engrave, which perhaps was not improbable, or at least not impossible. Tradition, however, did not seem to connect their process with earthworms. But this recipe of Heraclius furnishes the necessary clue to run down the source of this circumstantial fable, built as it was upon a single word's misleading root analogy.

Charles William King, M. A., D. D., in his *Natural History of Precious Stones* refers to this curious legend in Rabbinical literature quoted by Mr. Hoffman, which relates how the holy characters were cut by Moses upon the incomparable stones which adorned the breastplate of Aaron. This the legend says, Moses effected by simply tracing the characters to be cut upon the stones, in the blood of the worm *samir*, (or *shamir*) which was a liquid of such wondrous potency as immediately to dissolve and corrode the hardest substances.

Now as matter of practical fact there is no sort of doubt that the ancient gem engravers used corundum, next to the diamond in hardness. This word corundum, written in Hebrew is *smir*, or *samir*. Likewise *samir* and *smiris* are forms of the same Persian word. Doubtless infinite patience was a virtue of the ancient engravers, and human "elbow grease" not angleworms, furnished the "liquid of wondrous potency" in those days, as it does now. It is very interesting to note in this connection a

recent comment on ancient art on the editorial page of one of the great Metropolitan daily newspapers:—

FINE ARTS OF 8,000 YEARS AGO.

"In an interesting and extraordinarily complete collection of ancient Egyptian amulets which has just been placed on exhibition in the Brooklyn Institute Museum are some works of art which would do credit to the most skilful of our modern sculptors. When it is considered that many of these were made as early as 3000 B. C. and some of them as far back as 6000 B. C.—before even Abraham was born—one cannot but wonder what sort of civilization must have existed in those days. There is the face of a lioness carved in stone that would do credit to Barye; there are tiny bronze figures of Isis, Osiris and Horus that are as perfect in their proportions and as strong in their conception as any of the masterpieces of Rodin; there are alligators, turtles, cats and other animals which resemble nothing so much as the best work of the Japanese, and there are carved jades and turquoises which Boutet de Monvel or any of the present-day designers of jewelry in Paris might take as their models.


In arranging this probably unique collection, Prof. W. H. Goodyear wisely placed in the very centre of one of the cases a pair of the chisels with which such carvings were made, chisels that he says are 8,000 years old—and they are made of copper! The metallurgist of today who could so temper copper as to make a chisel of it would not only earn a fortune but would hand his name down to posterity alongside of that of Bessemer, yet he would be reviving an art which was a commonplace to these ancient Egyptians, and probably to the ancestors of our own American Indians."

This is peculiarly interesting in another way: It indicates how even the most practical, able and matter of fact writers of this scientific age, will sometimes make an unconscious obeisance to the marvelous. I would modestly suggest that hardened copper chisels, so hard as to be a fit agent for engraving gems is only a little less miraculous, if any, than the "magic potency" of the blood of the ancient angleworms of Egypt. Doubtless

hardened copper chisels were used, but not without corundum or diamond dust at their points of abrasion. It will not do to underestimate the two most important factors in the attainment of so high a degree of perfection in the practise of this ancient art: the inexhaustible patience of the Oriental in faithful adherence to an ideal to be wrought, and the abundant leisure incident to nomadic life. But, after all, is it really true that that old chisel of hardened copper over in Brooklyn, will actually cut a diamond? I may be wrong.

The Oracle — Continued.

The Name and the Hebrew Alphabet.

HE instinctive recognition of a meaning inherent in certain sounds or calls goes back to a hoary antiquity vast beyond conjecture. The high magic of the sound—the "*nomen numen*" of Varro—, was finally transferred to the visible symbol that stood for the sound. Even to the present day, animals retaining the ineffacable propensity from a wild state, will repeat with infallible precision, certain sounds under stress of fear or passion, as if in a blind belief that the emission of that particular sound, would exert in itself a certain protective power—, such as the "spit" or hiss of the cat tribe.

It is a far cry from the psychology of the brute to man. But it was a shorter one for man to extend the magic power of the invisible spoken word to the inanimate symbol which stood for the word or name. So when man, emerging from brute savagery, began to form ideas of the existence of super-sensible powers and intelligences, behind or residing in the grand divisions of the sensible elements, earth, air, water, fire, it was only natural that the common essence of these first abstractions should possess almost exclusively a tincture of *malevolence*. The powers of nature were man's enemies, bent on his destruction. The sirrocco, simoon, tornado and hurricane, devastated everything before them; the earthquake crushed and killed; the water drowned; the fire consumed. As these were all enemies to be propitiated, what more natural than by invocations and conjurations.

As has been said many times by writers, it was abject *Fear*, that formed the basis of primitive worship. Primitive worship and magic were indubitably one and the same thing originally. But all magic was "white" in the beginning, and its most natural application was by conjuration of the particular one of the great gods of the elements, or the one of their innumerable subdivisions which was to be propitiated. We all know the unbounded power of fear to produce the wildest exaggerations. Very soon the power of these gods resident in the elements or their subdivisions, took on such distressingly dreadful proportions, that even the *names* of the deities were supposed to be sufficiently potent to evoke divine protection, and sometimes the most fearfully marvellous phenomena.

So we may read in translations of the ancient Egyptian papyri, relating to the *names* of the gods:

"If his name were pronounced on the border of the river, yes! he would consume it. If his name were pronounced on the earth, yes! he would strike out sparks from it."

But Lenormant says in "*La Magie chez les Chaldeens*" (p. 104), "The true and original Egyptian idea was that the mystic name exercised a power upon the god himself to whom the name belonged, and that when called by this name, he was *obliged* to obey the incantation.

"They considered it necessary," says M. Maury, "even when the magician did not understand the language from which the name was borrowed, to preserve the primitive form of the name, as another word would not have had the same virtue. The author of the *Treatise on the Egyptian Mysteries*, which is attributed to Iamblicus, maintains that the barbarous names taken from the dialects of Egypt and Assyria have a mysterious and ineffable virtue on account of the great antiquity of these languages. . . . Egypt and Chaldea are the two sources of all learned magic for Greek and Latin antiquity as well as for Jewish and Arabian tradition."

For its special bearing upon what will appear in the sequel, I want to call particular attention to the fact that Lenormant considers the Chaldean of the greater antiquity. "The primitive

simplicity of the incantations of Chaldean magic strikes us forcibly when we compare them with those of the Egyptian magic, and this fact gives to them a stamp of greater antiquity. Everything is expressed very clearly and simply without any attempt at obscurity, or premeditated complications. *The belief in spirits is seen there in its most ancient and perfect form*, (the italics are mine) without any philosophical refinement as to the divine substance, without a single trace of mysticism. . . .

"The formulæ (of the Accadians of Chaldea) were the work of a people who possessed as yet no esoteric doctrines and no mystical initiations; amongst whom the science of magic consisted simply in a practical acquaintance of the priests with certain rites and *words*, by means of which they fancied themselves able to establish a communication with the world of spirits. . . . It is for this reason that the Accadian magic preserved, even during the centuries of the greatest splendor of Babylon and Assyria, the appearance of extreme antiquity, and the spirit of the earliest ages." . . .

With them later, Hea was the name of one of the great gods presiding over the four primal elements,—"*The divine intelligence which penetrates the universe, the master of the eternal secrets, the god who presides over theurgical action; he it is who reveals the mysterious rite, the formula, or the all powerful hidden name, which shall thwart the efforts of the most formidable powers of the abyss.*"

It was doubtless from this source that the Hebrews obtained their ideas of the unpronounceable name of the Divinity—the Tetragrammaton, and of the amazing potency of its use.

"But the highest and most irresistible of all the powers," says Lenormant (p. 42), "dwells in the divine and mysterious name, the 'supreme name,' with which Hea alone is acquainted. Before this name, everything bows in heaven and in earth and in Hades; and it alone can conquer the *Maskim* (the demons that cause the earthquake), and stop their ravages. The gods themselves are enthralled by this name, and render it obedience If any man succeeded in divining it, that alone would invest him with a power superior to that of the gods."

It is related in the same great work, that even when Hea was teaching this name to his own son, it was not uttered; and it was not to be written in the formula. It was believed that the mere mention of it in any way, even indirectly, was sufficient to produce a very decisive effect.

"Everyone knows," continues Lenormant, "to what a pitch the belief in the all-powerful and hidden name of God has grown amongst the talmudical and cabalistic Jews, and how general it still is amongst the Arabs. We now see clearly that it came from Chaldea. After all, such a notion *ought* to have taken rise in a country where they considered the divine name, the *Sehem*, as endowed with properties so special and individual that they succeeded in making of it a *distinct person*."

So the mystical name *Om* of the Buddhists of India and Tibet, is supposed to possess similar virtues to those ascribed to Hea, down to the present day.

The following is taken from the Jewish Encyclopedia: Of the names of God in the Old Testament, that which occurs most frequently (6,823 times) is the so-called Tetragrammaton Y H W H. . . . This name is commonly represented in modern translations by the form "Jehovah," which, however, is a philological impossibility. . . . This name, according to the narrative in Ex. III (E), was made known to Moses in a vision at Horeb. . . . It is supposed the name was not known to the Patriarchs. In Psalms and Chronicles Elohim occurs much more frequently than Y H W H. . . . The original pronunciation must have been Yahweh. The root idea of the word means "to be," "to live." . . . Various conjectures have been made in recent times respecting a possible foreign origin of this name. Some derive it from the Kenites, with whom Moses sojourned, Sinai, the ancient dwelling place of Y H W H having been according to the oldest tradition, in the Kenite country. A Canaanite, and again Chaldean origin, have been proposed, but upon grounds which are still uncertain, various definitions of the meaning of the name, differing from that given above have been proposed; e. g., (1) that it is derived from הוה ("to fall") and originally designated some sacred object, such as a

stone, possibly an aerolite, which was believed to have fallen from heaven: (three other possible meanings are given rather too long to quote here—but the author quoted continues) “The first explanation, following Ex. III, 14, is, on the whole, to be preferred.”

There were six other divine names of the God of the Hebrews; seven in all, the sacredness of which was such that the scribe upon writing one always paused first, and once started, he must not stop till it was finished, even to greet a king. These *seven* divine names were El, Elohim, Adonai, Y H W H, Ehyeh-Asher-Ehyeh, Shaddai, and Zeba’ot.

Professor Ludwig Blau writes on the strength of Assyro-Babylonian Cuneiform inscriptions, that assumptions to explain the divine name of the Hebrew God, as Hittite, Persian, Egyptian, and even as Greek, are now absolutely set aside, since the name at all events is Semitic. The question remains, however, whether it is Israelitish or was borrowed. Friedrich Delitzsch, in discussing this question, asserts that the Semitic tribes from whom the family of Hammurabi came, and who entered Babylon 2500 B. C., knew and worshipped the god of Ya’ve, Ya’u (i. e., Y H W H).

Kaufmann Kohler, Ph. D., says in the same work,—“When the Tetragram Y H W H became too holy for utterance, Adonai was substituted for it, so that, as a rule, the name written Y H W H receives the points of Adonai and is read Adonai, except in cases where Adonai precedes or succeeds it in the text, when it is read Elohim. . . . The priests were allowed to pronounce the name at the benediction only in the Temple; elsewhere they were obliged to use the appellative name ‘Adonai.’”

So Philo, in “Life of Moses” 3. 11; says: “The four letters may be mentioned or heard only by holy men whose ears and tongues are purified by wisdom, and by no other in any place whatsoever.” And according to Josephus’ Antiquities: “Moses besought God to impart to him the knowledge of His name and its pronunciation so that he might be able to invoke Him by name at the sacred acts, whereupon God communicated His name, hitherto unknown to any man: and it would be a sin for me to mention it.”

R. Tryphon relates (Yer Yoma i i i 4od): "I was standing in the row of young priests and I heard the high priest mumbling the Name, while the rest of the priests were chanting." Thus the correct pronunciation became a secret entrusted only to the worthy ones—and even these were taught it only *once in seven years.*"

(Yadayim 4. 8.) *"Wo upon you who write the name of the temporary ruler along side of the sacred Name."*

So the substitute Adonai "Lord" came into use. "Yet this simple measure introduced to guard the Name against profane use, formed one of the most powerful of securing the Biblical God the universal character with which he is invested as the ruler of men and nations. Y H W H as the God of Israel—the *Lord* is no longer the God of one people. He is Lord of all the world, the Only One."

"With the Tetragrammaton (Y H W H) must be included the names of God formed of twelve, forty-two, and *seventy-two* letters respectively, which are important factors in Jewish mysticism. They have, according to tradition a magical effect. . . . The simplest way of determining these three names is to form a magic triangle whose base is a single Tetragrammaton, and its apex the Tetragrammaton repeated thrice. The four upper lines (12 11 10 9) give the names with the forty-two letters; and the entire figure represents the Divine Name of seventy-two letters. In the earliest manuscripts of the septuagint the Tetragrammaton was given in Hebrew letters—"

The precise arrangement of the seventy-two letters of each of the verses referred to (216 in all), in a square of seventy-two places, eight one way and nine the other, is shown in another place. Before doing so, however, I desire to call attention to some further general considerations pertinent to further principles involved in the suggested way, in which I have conceived that the mysterious oracle of Urim and Thummim might have been worked. For a final quotation on this subject, I take the following from the Jewish Encyclopedia,—the author is Mr. J. D. Eisenstein of New York City. "It appears that a majority of the priests in the last days of the Temple, were **unworthy** to pronounce the Name and a combination of the letters or of the

equivalents of the letters constituting the Name, was employed by the priests in the Temple. Thus the *Twelve-Lettered-Name* was substituted which a baraita says, was at first taught to every priest; but with the increase of the number of licentious priests,



the Name was revealed only to the pious ones who ‘swallowed’ its pronunciation while the others were chanting. . . . The incommunicable Name was pronounced Adonai.”

As an illustration of how the earlier concepts as to the magic power of the Name, may have faded out of men's minds with the years, I may be pardoned a digression here for a reference to the famous engraving known as *Melancholia*, by Albrecht Durer. It may be seen at a glance that this remarkable picture is a mass of symbolisms. The sun typifies LIGHT, the rainbow COLOR, the cloud and the beast in the sky typify DISEASE and EVIL and perhaps may refer directly to the great plague as the cause of Melancholy. The hour-glass stands for TIME, the bell for SOUND, the geometric forms for SPACE, the scales for JUSTICE, the little tablet of figures over the head of the genius of Melancholy for MAGIC and the mystic power of NUMBERS, etc., etc.

The little tablet of figures referred to is a magic square. The columns all foot thirty-four in any direction. Probably this baser idea of *magic* had crowded out the earlier concept of the power of The Name. Rev. Chas. Wm. King, the celebrated authority whose nomenclature of precious gems was adopted by the Metropolitan Museum of Art of New York City, already quoted in a previous chapter, explains in *Antique Gems*, that the original of this magic square in the engraving, was an abraxas gem amulet. And that probably the last surviving trace of the ancient amulet is found in an engraved plate of silver then current in Germany, as copies of the original abraxas gem amulets, (called "Jew's stones," because they bore the Hebrew names of the Diety), were easier engraved on metal, gem engraving having become almost a lost art.

He says further in his work, *The Gnostics and Their Remains*, p. 130, "There is an amulet against the plague still current in Germany (perhaps the last surviving representative of this class of inscriptions), engraved thus on a thin plate of silver:

+ ELOHIM + ELOHI +																																					
+ ADONAI +	<table><tr><td>4</td><td>-</td><td>14</td><td>-</td><td>15</td><td>-</td><td>1</td></tr><tr><td>9</td><td>-</td><td>7</td><td>-</td><td>6</td><td>-</td><td>12</td></tr><tr><td>5</td><td>-</td><td>11</td><td>-</td><td>10</td><td>-</td><td>8</td></tr><tr><td>16</td><td>-</td><td>2</td><td>-</td><td>3</td><td>-</td><td>13</td></tr></table>								4	-	14	-	15	-	1	9	-	7	-	6	-	12	5	-	11	-	10	-	8	16	-	2	-	3	-	13	+ ZEBAOTH +
4	-	14	-	15	-	1																															
9	-	7	-	6	-	12																															
5	-	11	-	10	-	8																															
16	-	2	-	3	-	13																															
+ ROGUEL + JOSEPHIEL +																																					

"This tablet appears suspended over the head of Melancholy in Albrecht Durer's famous engraving, a proof of its importance in his days."

And yet notwithstanding that importance the true import of the tablet as an amulet seems to have been transferred from the earlier concept of the power of the Name, to the magical effect supposed to be wrought by the power of numbers, especially as the summation 34 does not seem to refer to any of the traditional permutations of the letters of any of the Names of the Deity, but is left to rest wholly upon the magic effect of numbers alone. Because in none of the authentic copies of Durer's engraving to which I have had access, is there any trace of the names on the margin of the tablet, as noted by King as on the original amulet, and shown in the last cut.

The names Roguel and Josephiel at the lower margin of the plate, are those of the angels of God. Roguel, Mr. Friedus informs me, being simply another spelling of the more proper form

Raziel, the name in Rabbinical literature of the "Angel of the Secret of God."

It is a curious fact that different copies of Durer's engraving, supposed to be authentic, give different arrangements of the figures, as may be seen by comparing the last two cuts. And these again differ from the arrangement in those authentic copies to which I referred as having had access, viz., those at the Lenox Print Department of the New York Public Library, at the Fogg Art Museum Harvard University, and at the Cambridge Public Library, where the arrangement is as follows:

16	-	3	-	2	-	13
5	-	10	-	11	-	8
9	-	6	-	7	-	12
4	-	15	-	14	-	1

It will be noticed however, that the summation of the columns in them all remains the same, viz., 34.

Referring more particularly to the origin of these magic amulets as traced to "Jew's Stones," otherwise abraxas gems, King says further, in *Antique Gems*, that medieval philosophers were always using the expression, "If a gem *be found*, engraved with such or such a figure,—which shows that they were entirely dependent upon chance for the acquisition of these invaluable talismans. These gems were called 'Jew's Stones,' because their origin was ascribed to the ancient Hebrews. This helped increase belief in their mystic potency. . . ." It seemed most natural to assign their origin and invention to the ancient Israelites because of the numerous Hebrew words and titles of the Deity that occurred upon them. Whenever one of these stones was found it was always used as an amulet. They thus furnish indisputable evidence of Jewish influence over the views of the heathen nations of antiquity. "From the papyri and magic gems," says Ludwig Blau, Ph. D., etc., in *Jewish Enc.*, "it is certain that the word *abraxas* refers to the use of the 'Ineffable Name' as a master key with which the powers of all the upper and the nether world are locked or unlocked, bound or loosened. . . . Now there occurs in the mystical writings, the name Raza Rabba ('the Great Secret') met also in the Cabala under

the name of Raza de Razin ('secret of secrets'). This suggests the etymology of abraxas from Ab Raza, 'Father of the Secret' which is the same as 'Master Secret.'" Parchments are to be found in the U. S. Nat'l Museum in Washington, which show similar squares arranged with the permutations of the letters of the name of God.

"The use of anagrams by the Jews dates back to the remotest antiquity. Several occur in the Bible. . . . The golden age for anagrams began with the Kabala. The Platonists had strange notions as to the influence of anagrammatic virtues, particularly of anagrams evolved from the transpositions of letters of the names of persons. . . . most amulets are based upon the transposition of letters." (J. Enc.)

Moses' rod bore Hebrew characters as a prevention of plagues.

Abraham wore a jewel upon his neck—"a stone of preservation," which healed every sick person he looked upon.

The Hebrew Alphabet.

IT seems quite impossible to arrive at any definite conclusion as to the age in which the use of the Hebrew letters with a number significance had its origin. The antiquity of that time is probably very great. There will doubtless always be some doubt as to whether the most ancient gems with Hebrew letters engraved upon them, bore any special number significance. But it will appear from what follows, highly probable at least, that the magnificent gems of Aaron's Breastplate, were thus peculiarly significant in their use and application.

I am indebted principally to the Jewish Encyclopedia for the information which follows, found mostly under the heads Cabala and Gematria. And while cabalistic doctrines are not

now in good repute as orthodox or reliable, or making for the best interests of the Jewish people, or humanity in general, still it must be admitted that ethics was the highest aim of the ancient "Kabbalah."

I am now however, referring to it solely for its historic import, and not to bolster in any way any of its questionable tenets.

Kessler and other authorities have shown that the Cabala was Jewish long before it was Christian, and was, in fact, of Chaldean origin.

In regard to the antiquity of the "Mystic Lore" of the Cabala, "The Book of Jubilees" presents Abraham as the *renewer*, and Levi as the permanent guardian, of these ancient writings. It offers, as a thousand years prior to the supposed date of the "Sefer Yezirah," a cosmogony based upon the twenty two letters of the Hebrew Alphabet. The "Sefer Yezirah" is founded upon the creative power of numbers and letters. "Rab's saying" was, "Bezalel knew how to combine the letters by which heaven and earth were created." That many such books containing secret lore were kept hidden away by the "wise" is clearly stated in IV Esdras, XV, 45, 46. The very fact that Abraham, and not a Talmudical hero like Akiba, is introduced in the "Sefer Yezirah" at the close, as possessor of the "Wisdom of the Alphabet," indicates an old tradition, if not the antiquity of the book itself.

In Cabalistic literature, the theoretic basis of the origin of things, is that all creation was an evolution of emanations from En Sof. "The first degrees of that evolution are the ten sefirot, from the last of which, Kingdom, developed the twenty-two letters of the Hebrew Alphabet. Through this Alphabet, the whole finite world has come into existence. These letters are dynamic powers. Since these powers are numbers, everything that has sprung from them is number. Number is the essence of things, whose local and temporal relations ultimately depend on numerical proportions." (Could anything be more definitely prophetic of the scientific vibratory and wave theories?)

While the three primal elements they dealt with, air (fire), earth, water, constitute the *substance* of things, the twenty-two

letters of the Hebrew Alphabet constitute their *form*, and numbers constitute their essence. The letters hover, as it were, on the boundary line between the spiritual and physical world; for the real existence of things is cognizable only by means of language, by which means the human ability to convey thought functions.


As a curious illustration of the persistence of the idea, (and its antiquity) that some mystic or sacred influence attaches inseparably to the letters of the Hebrew Alphabet and their number relations, reference may be had to the Five Books of the "Lamentations" of Jeremiah. These books were written shortly after the destruction of Jerusalem. The highest Jewish authorities regard them as undoubtedly written by their "weeping prophet," Jeremiah. The original structure has peculiarities which are only partly preserved in the Septuagint version, (about two hundred and sixty years before Christ), but which partially reappears in the authorized English version of the Bible, where the five original parts form the five chapters of Lamentations.

It may be seen by reference to the English Bible, that Chapters I, II and IV, each contain exactly twenty-two verses. (The number of letters in the Hebrew Alphabet), with slight exceptions arranged so that the initial letters of the verses come in alphabetical order—(in the original Hebrew). But for chapter III,—three being in the ancient Hebrew lore, a peculiarly sacred number—the alphabet is multiplied by three, and, consequently that chapter has sixty-six verses. Each of the twenty-two Hebrew letters in order, beginning three verses in succession. Chapter V resumes the original order and has twenty-two verses.

King, previously quoted, in his great work on Gems, refers to Josephus as declaring that the stones of the High Priest's Breastplate (which he saw), were engraved in "national character," and says, "By 'national character,' Josephus could only have meant the Chaldean or modern Hebrew letter, used in his times for the scriptures. . . . The Chaldee, . . . after Ezra's legislation became the sacred alphabet of the nation; if they used any alphabet before the captivity, they must have belonged to the oldest punic."

The Oracle — Continued.

Light and Number.

HATEVER may be the modern popular scientific definition of Light, it is not that with which we are now concerned in this enquiry, but rather with the fact that there cannot be any sort of doubt, that ancient and primitive people regarded it as the most marvelous and mysterious of the "Secrets of God." Whether light itself is a substance or not, or whether it is only a kind of visible expression of varying forms of "radiant energy," it will come to this in the end, that the transformation of one of these expressions of energy into another is always a matter of figures.

It is not too much to say that long, long ago, there seemed to have been a dim but instinctive perception of the fact that the deepest and most obscure of nature's marvelous secrets are expressible only in the ratios and relations of numbers. The bolts and bars that have most successfully held back discoveries of many of these secrets, are the differences in the velocities of different rays and colors of light. But what seemed more apparent to the primitive people was the strange paradox that the stronger the light thrown upon some things, the greater was their obscurity. Stars for instance, at noonday. (To say nothing of modern seance room ghosts.)

Light is responsible for more mental hallucinations than any other physical phenomena of nature. The worst fallacy of all is the common conviction that it must of necessity make anything it falls upon more easily visible, if only that thing is not an empty fraudulent pretense.

I am not now arguing for or excusing the absence of light from the seance room. As already emphatically stated, I am not a spiritualist. But I want to say this as the simple record of a palpable fact concerning Light, that the so-called illusions or hallucinations charged to its absence, seem to have been so overwhelmingly spiritual in their import, in spite of every predisposition to the contrary, on the part of the great scientists who have investigated ghosts, that well nigh every one of them has turned spiritualist. However, neither is that question in the line of our present enquiry.

The enquiry is merely as to what part Light played in the mystic beliefs and rites of ancient people. With that alone in view, we are now looking into the nature of Light as it appeared to them.

Light was something swift. With all our marvelous advances in knowledge, we can conceive of nothing in the heavens or on earth that is swifter than light, excepting only thought. Thought is swifter than light, but not so swift but light retards it. Else why do you shut your eyes to think well? And why never so well as in sleep?

In nature were contradictions incomprehensible. Light was something so utterly impalpable that, *as Light*, it was not perceptible to the most delicate sense of touch. Science now says that is so because Light is not a substance of any sort. Yet it is *visible*—that is,—the very *cause* of vision. While on the other hand there is that in nature which is a very conglomeration of tangible substances such as argon, helium, oxygen, nitrogen, ozone and goodness knows what not, which is so sensible to touch as to be able to destroy navies on the seas and cities on the land, and yet is itself forever invisible—namely, wind.

These strange conflicts of the senses cannot have failed to impress deeply the ancient observer, close to nature; and all

the more those religiously inclined, as the Hebrews always were. The most curious features of their speculations on the nature and circumstance of light, is the persistence of the idea of its inherent connection with the harmonious relations of numbers, and the magic powers of the first or primal light.

According to the "Secret Lore of the Rabbis," Light was the primal element of creation. And the penetrating nature of this primeval Light was fabulously powerful. The first man had no need of microscope or telescope; what we now use them for was conferred by a property inherent in the primal Light itself; so that the primal man could see right down into the earth and observe its minutest structure, as well as to the remotest ends of the world, which this Light made to appear near. But this first light did not remain on earth long. God knew that wicked men—(and trusts)—were sure to arise, so He removed this all powerful form of Light to reserve it for the righteous in the world to come. The power of this fabulous Light was so great, that having once imparted even a slight portion of its magic property to certain objects it could never again be entirely withdrawn, but would forever remain latent therein. So it is related that God gave Adam two peculiar stones, bricks, which had imbibed the primal Light, and which shone out brightly when Adam rubbed them together, to dispel the terrors of the night that followed his sinning.

And so again, according to the Sanhedrin Talmud, "Noah used (in the ark when the darkness of night came on), a precious stone which illuminated all the surroundings." (108b. Gen. R. XXXI.)

It was only one spark of that first Light which illuminated and gave to the sun and moon and stars their lasting brilliancy, so that they ever after remained *one hundred times* as bright as the light now visible on earth. The light of the future, according to Targumim to Isa. XXX: 26, will be *three hundred and forty-three* times as bright as the sun. In the revised version of the Bible, this particular reference now reads, "Moreover the light of the moon shall be as the light of the sun, and the light of the sun shall be *sevenfold*, as the light of the *seven* days," etc.

I shall have occasion later to dwell more particularly upon the amazing vitality of the number seven, due perhaps to the natural divisions of Sound and Color, but would note simply in passing, the curious fact that in the predicted light of the future as referred to above, *three hundred and forty-three happens to be the product of seven times seven times seven.*

It is of course well known that the Jewish symbol of the divine presence was called the *shekinah*, which consisted of a visible light in the shape of a luminous cloud. It is the usual practise in shaping windows in heavy masonry of the present day, to widen or expand the aperture *inward*, in order to disperse more light *within* the space enclosed by the walls. But according to the Jewish Encyclopedia this was not the case in the construction of the windows in Solomon's temple. There, the reverse was the fact, and the windows were "*narrowed from without*," because where the shekinah was, there was no need of light from without; but on the contrary, expanding the window space in the wall outward would indicate that the sacred light was to stream outward, for the enlightenment of the people.

This divine light, however, was one of the five things lacking in the second temple. This, also, was the light which Pharaoh's daughter saw shining over the infant Moses. The genesis of this light is extremely interesting. According to the Rabbis there were THREE primordial elements which preceded the creation of the world; the primal element of all in the world creation being light. The three original uncreated elements were water, spirit, fire. But there were six kinds of fire, and the sixth kind is the fire that consumes fire. This sixth kind was the fire of divine origin which gave the light of the shekinah to the first temple. The evolution of these three primordial elements, (as human bubbles blown), was as follows:

First of all, the water became pregnant and gave birth to darkness;

Then, at God's command, "the fire became pregnant and gave birth to LIGHT;

And last the spirit became pregnant and gave birth to WISDOM.

Recalling the ancient belief that in the light of the first day, the natural eye could not only see down into the earth, but also to all the ends of it at once, and thus by aid of that light be able to view things on all sides at one and the same time, from the same point of view, *exactly as they are in fact*, instead of in the unreal appearance they are compelled to present by the nature of the mechanism of the illusory sense of sight, operating under the laws of perspective—recalling, I say the ancient belief, one can almost discern therein a prophetic glimmering of the fundamental possibility of a fourth dimensional existence, which is just now exciting the brains of the mathematical geniuses of our age as a possible demonstrable fact of physics, and the metaphysical geniuses as logically including a faculty of prescience.

Number.

IT must be recognized at once that a distinct connection between any given number and any certain idea, cannot be *proved* as existing originally in the Bible records. Proof of this that would be regarded as scientific or convincing in its nature, has not yet been found. The following three illustrations may be considered as a *probable* existence of the symbolic use of numbers in the most ancient form of the Bible itself:—Gen. XIV:14, where the number three hundred and eighteen is equivalent to “Eliezer”—the only name known to tradition from among those of Abraham’s servants; Deut. XXXII: 1, 6, the initial letter of the verses giving the number three hundred and forty-five, the value of the name of Moses—and Ezek. V: 2, the value of three hundred and ninety is found. The Jewish Encyclopedia is authority for the above.

However, whether the Biblical use of number symbolism in any instance is proven or not, the general principle remains, which

stated epigrammatically may be, that a nation or race is low, savage, brutal and barbarous, or civilized and advanced in ethics, religion, and scientific attainments to just that extent to which it can count. For the extent to which any race can avail itself of the intrinsic harmonies and symmetries inherent in the science of numbers, and apply them in discovering the laws that govern the forces of nature, and then apply the laws to work out a material betterment of the race, constitutes and determines the position of that race in the scale of human advancement; whether it be in medicine, religion, astronomy, physics and the unguessed miracles of metallic radio activity, or in the cocoanut trade.

A Lord Kelvin, who can express its laws in mathematical formulas becomes the "father" of electrical science and the savage who can count beyond the limit of his fingers becomes a "boss" in the export trade of his region.

By virtue of this general principle, and the undisputed fact of early Babylonian influence, the Chaldeans especially proficient in mathematics, it is inconceivable that the Hebrews in the times in question, had no symbols or signs, for number, whether used in the Bible or not. "It is not possible or conceivable," says E. G. Hoffman in the Jewish Cyclopedia, "that there were no numerical *signs* at that time. The necessities of daily life required it. There is no basis for the assumption that there were *special* signs,—it is therefore to be assumed that the numerical value of letters of the alphabet was known in very early times."

It is probable that the source of this knowledge was Chaldea. For it was in the city of Ur of the Chaldees that father Abraham himself had his home. In Chaldea the "ineffable and unpronounceable Name" of the deity had to be represented by *some* symbol which was not the name itself. The symbol was numerical.

"Still more powerful," says Lenormant in "La Magie chez les Chaldeens," (p. 41), "than the incantations were conjurations wrought by the power of numbers. In this was the supreme secret which Hea taught to his son, when he consulted him in his distress, which was always called 'the number.'"

One of their conjurations which was considered to work an especially happy influence upon the crops, was as follows:

"The corn which stands upright,
Shall come to the end of its prosperous growth;
The *Number* (to produce it)—
We know it.

"The corn of abundance
Shall come to the end of its prosperous growth;
The *Number* (to produce it)—
We know it."

Also on page 112, the same author says, "The Chaldaic Babylonians, devoted almost exclusively to astronomy, read in the whole siderial and planetary system, the revelation of a divine Being. Like the Syro-Phœnician nations, they considered the stars as the true exterior manifestations of this divine Being, representing them in their religious system as sentient persons proceeding from the substance of the Absolute Being, whom they identified with the world, which was his great work. Only in its definite form their religion classed these emanations in a *learned and philosophical scale*, which must have been the result of deep thought.

"In the numerical theological scale system of the Chaldean religion, 'the god,' the pre-eminent One and Good, was represented by the sign *I*,—a single stroke, which also indicated the sacred cycle 60. This was the first principle.

"Speculations upon the value of numbers," says Lenormant, in the work already quoted, "held a very important place in the Chaldean ideas of religious philosophy (see Sir Henry Rawlinson Pl. 40, for tablet of name roots). One of the tablets in the library of Nineveh gives the list of the principal gods, *each with his mystic number*. Now it seems that in connection with this scale of whole numbers applied to the gods, there was a scale of fractional numbers applied to the demons corresponding to their reciprocal ranks. . . .

But as to spirits or demons of a malevolent or mixed order of these "as a general rule," says Lenormant, "each class is divided into groups of *seven*, that most important magical and mysterious number. . . . The only faint ray upon this subject of rank comes from the following fact, that speculations upon the value of numbers held a very important place in the Chaldean

ideas of religious philosophy. In consequence of these speculations, each god was designated by a *whole* number of the series between one and sixty, corresponding to his rank in the celestial hierarchy."

It must be remembered that the Chaldean system of numbers was sexagesimal, and that to this day, our astronomical and engineering and navigating divisions of the circle, is a legacy from the Chaldeans. Likewise our divisions of Time into twenty-four hours (multiple of six);—into weeks of *seven* days and years of twelve months. So when it came to showing the ranks of any particular demon, the enumerator of a fraction of which sixty was the denominator, accomplished the purpose thus: $\frac{30}{60}$ or $\frac{40}{60}$ or $\frac{50}{60}$ as the case might be.

In the case of the Maskim, they were the highest class of demons, of a cosmical character though their habitation was in the earth. They had great power over the forces of nature and could disturb their natural order. They produced earthquakes. There were *seven* of them. Their mystic number was always a fraction of sixty. There were likewise *seven* great gods of the heavens. But they had their mystic whole numbers.

Corresponding with each of the gods, was a feminine divinity—passive principle. They had *three* trinities, "each composed of a father or *first principle*, a *power*, and an *intelligence*."

They never recognized a god without dividing his substance into a male and female principle.

Over the hoards of the lesser gods, (there were legions of them)—there were "*twelve* great gods" who constituted the true Chaldaic-Babylonian Olympus. These were called by Diodorus Siculus, "Masters or Lords of gods," who presided over the *twelve* months of the year and the *twelve* signs of the zodiac.

"There were four classes of protecting genii; the emblems of these four classes *were adopted by the prophet Ezekiel*, (the italics are mine), as those of the four symbolic creatures; which supported the throne of Jehovah, in his wondrous visions by the river Chebar." (See Ezek., Chap. I: 10; X: 14.)

It would be extremely interesting to know whether this mystic *twelve* had any influence in determining the number of stones on the Breastplate of the Jewish high priest.

Lenormant also gives, on page 97, an Egyptian incantation for protection against crocodiles by the magic power of the mystic number seven.

"And their mouths are closed as the *seven* great secrets are closed—With an eternal closing."

And in another against all noxious animals:

"The spear of the *seventy-seven* gods is on thine eyes; the arm of the *seventy-seven* gods is on thine eye."

Another invocation is addressed to the *seven* gods who dwell in the flames. . . and to the *twelve* gods of bronze placed inside the bronze inclosure of the nether world.

The Chaldean country of the dead whence none return—(except the one who finds the spring of life at the very bottom), is divided into *seven* zones as in Dante's "Inferno."

When there is an eclipse, it is the war of the *seven* demons of heaven breaking out against the moon.

The curious prominence and frequent appearance of certain numbers in the quotations from sacred literature and other sources, can scarcely have escaped the notice of the reader, especially that of *three, four, seven* and *twelve*.

Caspar Levias, M. A., of the Hebrew Union College, Cincinnati, O., writes, "The sacredness of this number (3), is probably due to the fact that primitive man divided the universe into three regions; heaven (air), earth and water, respectively represented in Babylonian mythology by the divinities Anu, Bel and Ea. Its sacred or symbolical use may be illustrated by such passages as I Kings XVII: 21; I Chron. XXI: 12; Dan. VI: 10, etc.

"In traditional Hebrew literature three and one-half *as a half of seven*, is frequently used as a round number. Dan. VII: 25; IX: 27; XII: 7.

"*Four* is sacred as the number of the four cardinal points of the compass; denotes completeness and sufficiency. In cabalistic literature its sacredness is enhanced by the fact that the tetragrammaton (the unpronounceable 'name'), contains four (Hebrew) letters (Y H W H). The number is found Gen. II: 10; Judges XI: 40; Jer. XV: 3; Ezek. XIV: 21, etc., etc.

"*Seven* is the most sacred number. The origin of its sacredness is found by some in its factors *three* and *four*.

"*Twelve* derived its sacred character from the fact that it is the product of *three* and *four*, and is the number of the months of the year. . . . *The number twelve entered into Hebrew ritual.* . . . (These last italics are mine.)

"The Hebrew system of counting is like that of all the Semites, and like the Egyptian hieroglyphic system, the decimal, which is a later development of a more original quintal system, based on the fingers of one hand. *The blending of the Semitic system with Sumerian sexagesimal is found in earliest Babylonian times.* (The italics are mine.)

"At an early time in the history of man, certain numbers were regarded as having a sacred significance, *or were used with symbolic force*, (whether designated by letters or special signs), the origin of their symbolism lying in their connection with primitive ideas about nature and God. *Such a use of numbers is found also in the Bible; although the Biblical authors were hardly conscious of their origin.*" (Again the italics are mine.)

All pagan incantations are excessively monotonous in their repetitions, but at the end, "spirits of the heavens conjure; spirits of the earth conjure," is never wanting. They were great spiritualists. Take one of the tablets of incantations, for instance, notice the monotony of the following as given by Lenormant:—

"The seven gods of the vast heavens,
The seven gods of the great earth,
The seven gods of the igneous spheres,
The seven gods; these are the seven gods,
The seven malevolent gods,
The seven malevolent phantoms,
The seven malevolent phantoms of the flames in the heavens
seven,
On the earth, seven, etc., etc.
Spirits of the heavens conjure!
Spirits of the earth conjure!"


I have been thus prolix with quotations from authorities to show that it certainly cannot be claimed that the germs of this

mysticism connected with Numbers, which have ever taken such a powerful hold of the imagination, were planted in the Hebrew mind only after the Maccabean period; or that it had its origin with the cabalists, by whom the principle was afterwards developed into the most bewildering and fantastic abstractions, which is noted briefly in another section, as conferring such amazing powers upon the Hebrew Alphabet itself.

The numerical character of the Abraxas gems has already been noted. I refer here only briefly to the *numerical* significance of the word Abraxas. The Abraxas gems are ancient engraved stones which often bear one of the *seven* Hebraic names of God. Abraxas is the name given by Bacilides to the Highest Being who presides over the three hundred and sixty-four kingdoms of the spirit world. His reason was that the *numerical* value of the Hebrew letters of this name is equivalent to *three hundred and sixty-five* — thus: A=1, B=2, R=100, A=1, X=60, A=1, S=200: and $1+2+100+60+1+200=364$. This number plus 1 for the Highest Being himself makes the 365.

Many scholars claim that this word means the "Holy Word," "The Blessed Name," and by some it is identified with the four lettered name of God Y H W H (Jehovah).

The Oracle — Continued.

HUS far I have given briefly a general idea of certain elements and contemporary conditions that entered into and are inseparable from the mystery that surrounds the problems of the Oracle of the Breastplate. There are yet a few more such elements and conditions to be taken into consideration, but to keep in mind a brief summary of the main points thus far established, it will be remembered that there were three predominant historical facts, well known and undisputed, that constituted the main constructive features of the Oracle of the Breastplate, the principal sources of information of which are the Hebrew records of the Bible narrative, and the unearthed cuneiform inscriptions of Babylonia.

These were:—

(1) The impressively magnificent gems, permanently fixed, or mounted on the face of the breastplate, twelve in number; and of *different colors, and different shades of colors*. Prominent as this fact of dissimilar colors is, I have not yet been able to find that any writer has ever attached any special operative significance to it. (With the exception of the writer referred to by Professor King, who said that blue rays meant success and victory, while red portended war, and black, pestilence). These twelve gems set on the face of the breastplate, were in three perpendicular rows with four in each row.

(2) There were also LOOSE stones, gems, images, dice, or *loose articles* of some sort, which evidently constituted the actual active operative part of the Oracle as a whole. But the exact nature and number of these objects, make up the most dubious feature, in fact the unknown element which has made the whole problem the baffling mystery it has remained all these years. The most persistent idea, however, seems to be that the loose articles were only two in number. This is doubtless partly due to the probably erroneous conclusion that "lots" were cast, implying a mere affirmative or negative result, such as might be obtained with two small "images," of black and of white. This inference I consider an unwarrantable conclusion from the known facts.

(3) The EPHOD. The one thing above all others, which as an indispensable, indeed inseparable, adjunct of the Oracle as an *operative whole*, is explicitly explained in minute detail in the Bible itself. (The especially significant parts of the narrative as given in the twenty-eighth chapter of Exodus, I have put in italics.)

"And these are the garments which they shall make; a breastplate and an ephod and a robe; . . . And they shall make the ephod of gold and of blue and of purple, of scarlet and fine twined linen *with cunning work*. . . . And thou shalt make the breastplate of judgment *with cunning work; after the manner of the work of the ephod thou shalt make it*. . . . *Four square it shall be being doubled*; a span shall be the length thereof, and a span shall be the breadth thereof. And thou shalt set in it settings of stones. . . . and they shall bind the breastplate by the rings thereof unto the rings of the ephod, with a lace of blue, that it may be *above the curious girdle of the ephod, and that the breastplate be not loosed from the ephod.*"

In regard to the unwarranted assumption that the loose articles were two in number, for a simple affirmative or negative alternative, there are also direct evidences in the Bible where the reply was more than a mere yes or no. "And David enquired at the Lord, saying, shall I pursue after this troop? Shall I overtake them? And he answered him, pursue: for thou shalt

surely overtake them and without fail recover all." (I Sam. XXX:8). (All authorities have agreed that in all such "enquiries of the Lord," the use of the Urim and Thummim is implied).

Perhaps after all, the strongest grounds for the inference that the loose objects were only two in number, is in the fact of the *two words*, Urim and Thummim being traced to Babylonian stems meaning or referring to "Tablets of Destiny," of which it is assumed there were also two objects, one tablet for each breast. But it is not so very clear in my mind that those Chaldean word roots may not have implied a more simple rendering, such as for instance as would be furnished in the idea of Questions and Answers,—wholly consistent with the main idea of "Tablets of Destiny" as an Oracle.

However that may be, one thing is certain, both the words Urim and Thummim in the Hebrew sacred writings *are in the plural*, and what more natural than the simple inference that if Urim implies more than one object, and Thummim also implies more than one, then taken both together there must have been *more* than two objects which those words stood for? Some scholars claim that the words are plural in *form* only and not plural in meaning. Perhaps they are right, I don't know. But at all events, I prefer to assume that the loose objects used in working the Oracle of the Breastplate *were* more than two, were TWELVE in fact; that these loose objects were twelve small stones of nearly equal sizes, less valuable of course than those prominently mounted on the face of the breastplate. But in respect to similarity in colors, as nearly exact duplicates as it was possible to get them. And as to a general uniformity of roundness and size, this would have been comparatively easy to those artisans who could engrave the letters that were said to be engraved on the stones of the Breastplate.

This indicates another way in which the persistent idea of *two* things may have become inherent and traditional, namely by there being *two sets of twelve gems*.

I have also preferred to follow the most obvious meanings of the direct Bible narrative wherever it has been possible to do

so. The expression "*with cunning work*," is, of course, more or less indefinite and vague, but we may depend upon it, the iteration of that significant phrase is not there for nothing. The splendid tribute of Renan to the ancient Hebrew language will well apply here:

"A quiver full of steel arrows, a cable with strong coils, a trumpet of brass, crashing through the air with two or three sharp notes, such is Hebrew. . . . The letters of its books are not to be many; but they are to be letters of fire. This language is not destined to say much, but what it does is beaten out upon an anvil."

Specifically, then, the twenty-eighth chapter of Genesis does not deal in idle or empty words. So let us make the simplest and most obvious inference from the direct statement, "Four square it shall be, being doubled." What is the most obvious—nay, inevitable result, of a fold of linen being doubled?

Three intervening spaces or pockets made by the four ply thus formed, is it not?

This is a fact so perfectly self evident and obvious that it needed no statement in words, especially in a language remarkably free from redundant phrases, direct as an arrow and for condensed meaning, "beaten out upon an anvil."

So also in the directions that the breastplate should be made "*with cunning work after the manner of the cunning work of the ephod*,"—every word is significant. Is it then assuming too much to say that the two main parts of the Oracle thus mentioned, were meant not only to appear in harmony as to style of workmanship, but were in actuality indispensable to each other in their mutual methods of co-operation? I do not presume to state it as my opinion (which could not have much weight), that the Oracle of the Breastplate was in very truth operated in the way I have conceived it possible. The mystery may have various solutions equally plausible. Various methods in fact have been suggested, but none made at all definite. All are indefinite conjectures in general terms. I am not in the least competent to decide the difficult point as to which of various solutions would be most likely to be right and true. The point

I wish to make clear is, that I expect to show distinctly in exact detail ONE way in which the Urim and Thummim *might* have operated in perfect harmony with all the known and accepted facts. Then, perhaps some scholar may take it up and find a still better way.

(4) The next fact of Biblical and historical record which I want to call attention to, may not at once appear relevant or logical. It is however in the light of preceding facts significantly pertinent and logical, and necessary to the prosperity of my suggestion as to how the oracle might have been worked, to show the existence of metallic MIRRORS at that time.

Metallic mirrors not only existed but were in common use. "And he made the laver of brass and the foot of it of brass of the looking glasses of the women assembled." (Ex. XXXVIII:8.) And in Job XXVII:18—"Hast thou with him spread out the sky which is strong and as a *molten* looking glass?"

"In ancient times," writes Joseph Jacobs, B. A., Ex-President of the Jewish Hist. Soc. of England; corresponding member of the Royal Acad. of Hist. of Madrid, etc., "mirrors were invariably made of metal; in Egypt, of polished brass. It is no doubt this kind of mirror to which reference is made in Ex. XXXVIII:8 and in Job. XXVII:18." So much is, at least, explicit, and authoritative.

FACE THE LIGHT.

(5) As to the relative positions of the parties consulting the Urim and Thummim: "The oracle was consulted in the following manner," says Ludwig Blau, Ph. D., Professor Jewish Theological Seminary, etc. Budapest, Hungary, writer for the Jewish Encyclopedia,—"the high priest donned his eight garments, and the person for whom he sought an answer, *stood facing him, while he himself turned toward God (i. e., faced the SHEKINAH.)* It was necessary that the question should be brief, and that it should be pronounced but not aloud; . . .

only one question might be answered at a time; if more than one were put the first alone received a reply. *The answer was given by the letters of the names of the tribes which were engraved upon the high priest's breastplate* (yoma 73 a, b, yer yoma 44c; sifre, Num. 141). (The italics are mine. But just how the letters gave the answer is not stated.)

"The characteristic feature of the Shekinah was radiance; and Josephus states that 'the oracles were revealed through rays of light;' 'But as to those stones, . . . bright rays darting out thence, and being seen by those that were most remote, which splendor yet was not before natural to the stone.'—(Josephus' Antiquities of the Jews, III:8, 9. Whiston's translation.)"

The sharp significance of this very definite information as to the relative positions of the persons actively engaged, namely the one who was seeking an answer from the oracle, and the high priest who was qualified to operate it by virtue of his office, and especially his *position in reference to the source of LIGHT*—the sharp significance of this information will be made strikingly apparent when we come to consider in the next chapter, what is at least one legitimately logical meaning and purpose of the "cunning work" of the Biblical directions for constructing the oracle.

Josephus states explicitly, the "Oracle responded through rays of light, . . . yet will I mention what is still more wonderful than this; for God declared beforehand, *by those twelve stones*, which the high priest bare on his breast, when they should be victorious in battle." . . .

That the reply of the Urim and Thummim *was* conveyed by rays of light, is also explicitly the Talmudic concept. Professor Blau says further, "The answer was given by the *letter* of the names of the tribes which were engraved upon the high priest's breastplate." What none of the authorities do state however, is a *definite*, practical method or system by means of which the twelve set stones and rays of light acted as the key which determined what the answer really was. That is the enigma. Therein has lurked the secret of the baffling mystery of the Urim and Thummim. Perhaps the nearest approach to probing to the heart of the mystery was made by two scholars

of the third century, notwithstanding the fact that Professor Blau thinks these old Jewish scholars had "lost the vividness of the earlier concept." These scholars were Rabbi Johanan and Rabbi Simeon ben Lakish.

Refer to the Talmud Treatise Yoma 73 b., where it is stated that Rabbi Johanan said that certain of the stones "*stood out*," and Rabbi Simeon ben Lakish said "*they formed themselves into groups*."

Surely without a miracle, the permanently *set* stones on the *face* of the breastplate could not have formed themselves into groups. But how beautifully might not a rounded duplicate set of the twelve stones have done so, in a suitable receptacle!

The Oracle — Concluded.

My Suggestions as to How It Might Have Been.



HAVE concluded by legitimate inference from all the foregoing details of historical fact, that the persistent idea of *two* objects having constituted the Oracle of Aaron's Breastplate, is logically based upon the possible fact that there were *two sets* of twelve gems. The larger and more precious being permanently attached in a fixed position upon the face of the Breastplate; and the second or LOOSE set being smaller and rounded, but as nearly as possible exact duplicates of the first set more especially as to COLOR. We have recalled that the inevitable result of a fourfold of a linen fabric, is THREE intervening spaces or pockets between the folds.

We are compelled to ask, what the very explicit directions in the Bible for the "fourfold" construction were intended to imply if not the necessity of those spaces or pockets? The oft mentioned *Oracle Pouch*.

Stated concisely, but which I will show in explicit detail further on, I have conceived that each of those three pockets probably contained four of the twelve loose gems, corresponding with their appropriate section of Breastplate gems.

I have therefore conceived one part of the "cunning work," to consist of three little apertures in the face of the breastplate. Each aperture connected with, or leading to, its own particular one of the three "oracle pouches" or pockets formed by the folds of the linen. The practical use of the aperture will

appear presently. I have conceived that a small strip of highly polished metal, such as was used for *mirrors* in those days, might have formed the *light reflecting background* of these apertures.

Furthermore, I claim that it does no violence to the reverential idea and belief, that an overruling Providence (Yahweh, Jehovah), as Destiny, did in fact decide the answer, to conceive that the high priest's hand facilitated the free intermingling of the gems of any particular pocket, (according to the *class* the question was in); and to conceive that his hand was the direct agent which caused the rounded gems to appear in the aperture, which was just large enough to receive and hold *three* of the gems at a time and no more. But the *order* in which they should appear and flash out their significant color combination, by virtue of the light reflected from the concealed mirror at the back of the opening, was entirely beyond his control. *That* was the part of Destiny, but it was also the priest's key to the answer of Jehovah.

Indeed this is the very fact which would constitute this particular arrangement the most perfect oracle in the world, which it undoubtedly was, and has remained to this day; because it more completely shut out the confusing element of the *personal equation* of the operator, than any other device since conceived of by the ingenuity of man. One thing is certain; we never *have* improved on the Chaldean sexagesimal division of the circle, which has remained in use the world over to this day. So their Tablets of Destiny, (to which the Urim and Thummim is traced), have excelled all other oracles because, here, for once, Destiny or Chance, or whatever you choose to call it, is given free play.

We have already shown that a more or less direct connection of the Urim and Thummim of the ancient Hebrews, with the Babylonian Tablets of Destiny has been established and accepted, at least as highly probable by the most advanced Biblical scholars, as well as by scholars generally. It is likewise a universally accepted fact of history that arithmetic, geometry, the calendar and astronomy, originated in Chaldea. A number of their meteorological data still hold good. The divisions of the

circle are to this day the same as inherited from Chaldea—both for engineering, for navigation and for marking time. So great were the powers of the old Babylonians for scientific speculation (by reason of their mathematical trend of thought), that they had theories of evolution, and spontaneous generation. It is therefore easier and more natural to conceive that their *Tablets of Destiny* had a numerical basis of interpretation, than that they did not.

It now remains to show definitely just what practical method the luminous combinations of three of the four loose stones in each pocket, at a time, could indicate unmistakably to the officiating priest, the answer of the Oracle. It is not in the least probable that it was left to the priest to formulate any answer that might suit his personal views of the exigency, however wise he might be. It was an ORACLE par excellence. Probably the most perfect the world has ever known. It was *Destiny* that dictated the answer, not a priest's whim. It seems to me, nothing in history can be clearer than that fact. There was a system of symbolic signs, however, that led the priest unerringly to the dominating idea in the answer; then it might have been discretionary to a certain extent, how the priest should apply that idea to the specific question.

This method was doubtless much simpler than any verbal description, at this late day, can possibly make it appear. But there was without doubt some very simple mathematical arrangement whereby the Oracle (or "Tablets of Destiny"), was made perfectly practical and gave Chance or Destiny the freest play possible, unthwarted by an intruding personal equation, to indicate what the answer should be. If my suggestion holds good, it will be seen that no other known form of device has since been fabricated by the ingenuity and cunning of man that ever came anywhere near it for perfection and simplicity of operation. Especially for shutting out the will of the operator from influencing the result.

Just how some such arrangement might have been used in connection with the Urim and Thummim with *twelve* engraved stones for a reference TABLE, or "tablet," I will now proceed to show in clear detail. Authorities differ as to what was the

actual scheme of the letters engraved upon the set or mounted gems. One authority, writing for the Jewish Encyclopedia under the title, "The Name," says, "A combination of the seventy-two-lettered-Name," (of God, derived from three verses in Exodus XIV: 19, 20, 21, beginning with *way yissa, way yabo, way yet*, respectively, each verse containing seventy-two Hebrew letters), . . . "appeared on the Urim and Thummim . . . consisting of the names of the twelve tribes, (50 letters), of the Patriarchs, (13 letters) and of the 'shibte Yisrael,' (the tribes of Israel, 9 letters)."

In principle, it is not material at all whether this particular authority is right or not. The prime fact remains that *letters were engraved upon the mounted gems*. No matter what those letters might have been, they were susceptible of acting as a mnemonic reference table, or as a key to numerically arranged classes of answers. So much at least is absolutely certain.

The authority last quoted continues, "Ibn Ezra figures the Seventy-Two-Lettered-Name as the equivalent in value of the name Y H W H (Yahweh or Jehovah), spelled with the names of the (Hebrew) letters."

If the seventy-two-lettered-name of God, which the learned Hebrew scholar and authority last quoted says "appeared on the Urim and Thummim," was divided up in such a way that six letters fell to each of the twelve stones of the Breastplate, the mnemonic scheme would be so much the simpler. As the stones were arranged in three rows, four to a row, there would thus be three groups or classes of twenty-four each to make up the seventy-two reference letters. This grouping into classes is the important element to remember.

I may repeat here, that it is not to be inferred from the fact that some of the following matter is gleaned from Kabbalistic literature, that those strained and mystic doctrines are thereby endorsed as true and reliable. That literature is good and valuable in so far as it contains evidences of pertinent historical facts. Now the Book of Jetzirah, which the Kabbalists claim as their oldest document, *was published in Babylon some fourteen hundred years before Christ*.

Neither Neo-platonists, nor medieval Jews, nor Alchemists, nor modern science can claim the honor of first discovering the amazing power and magic of NUMBERS.

The following significant and extremely pertinent and interesting data is taken from a rare little book, now out of print, entitled "The Kabbalah," by Christian David Ginsburg, LL. D., (a well known high authority among Biblical scholars); the same being an essay read before the Literary and Philosophical Society of Great Britain and Ireland, at Liverpool, in October, 1863.

"Dr. Chwolson of Petersburg," says Ginsburg, p. 76, "has shown in his treatise 'on the Remnants of the Ancient Babylonian Literature in Arabic translations,' that the ancient Babylonians laid it down as a maxim that if a man were to minutely and carefully observe the process of nature, he would be able to imitate nature and produce sundry creatures. He would not only be able to create plants and metals but even living beings."

Were, then, the astounding modern facts producible under the laws of hybridization and fertilization, of radio-metallic-activities of physio-chemical-action, known to that amazing people, by virtue of minds long trained in the idealism that belongs to pure mathematics? Were not their Curies, their Loebes and their Burbanks numerous and powerful?

"Gutami, the author of *Agricultura Nabat*," the essay continues, "who lived 1400 years before Christ devoted a long chapter to the doctrine of artificial productions. . . This and many other fragments," adds R—, "from whose communications we quote, show that there were many works in Babylon which treated on the artificial productions of plants, metals and living beings, and that the Book *Jetzirah*, mentioned in the Talmud was most probably such a Babylonian document." (The italics are mine.)

The Kabalists had certain hermeneutic rules. For instance, quoting again from Ginsburg, (p. 49) ;—

(1) "Every letter of a word is reduced to its numerical value, and the word is explained by another of the same quantity. . . .

(2) "Every letter of a word is an initial, or abbreviation of a word. . . .

(3) "The initial and final letters of several words are respectively formed into separate words. . .

(4) "Two words occurring in the same verse are joined together and made into one. . .

(5) The words of those verses which are regarded as containing a peculiar recondite meaning are ranged *in squares* (of Breastplate arrangement), in such a manner as to be read either vertically or as boustrophedon, beginning at the right or left hand. Again the words of several verses are placed over each other, and the letters which stand under each other are formed into new words.

"This is especially seen in the treatments of three verses in Exodus. (XIV: 19-21), which are believed to contain . . . the Divine Name of Seventy-two words. . . The first of these three verses,

26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		
ו י ס ע מ ל א ך ה א ל ה י ם ה ה ל ך ל פ נ י מ ח נ ה																											
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27				
י ש ר א ל ו י ל ך מ א ח ר י ה ם ו י ס ע ע מ ו ד																											
				72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51		
ה ע נ ן מ פ נ י ה ם ו י ע מ ד מ א ח ר י ה ם																											

'And the angel of God, which went before the camp of Israel, removed and went behind them; and the pillar of cloud went from before their face, and stood behind them,' is read boustrophedonally as follows: "

64	55	46	37	28	19	10	1
65	56	47	38	29	20	11	2
66	57	48	39	30	21	12	3
67	58	49	40	31	22	13	4
68	59	50	41	32	23	14	5
69	60	51	42	33	24	15	6
70	61	52	43	34	25	16	7
71	62	53	44	35	26	17	8
72	63	54	45	36	27	18	9

For the convenience of the reader who may not be familiar with Hebrew, I repeat the expedient here which I myself used, to make the boustrophedon arrangement referred to by Professor Ginsburg, perfectly clear. I added a series of consecutive index numbers over the seventy-two Hebrew letters of each verse, to indicate the order in which they are to be read. So instead of repeating the Hebrew letters themselves in the tabulated squares shown in Professor Ginsburg's book, use their representative numbers, which will show the English reader at a glance the arrangement of verse 19 as it would be in Hebrew.

"The second of these verses," says Ginsburg, (Exod. XVI, 20.)

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
י	ב	א	ה	נ	ה	ב	י	מ	צ	ר	י	מ	ח	נ	ה	ב	י	נ	ה	ח	נ	ה	ב
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
י	ש	ר	א	ל	ו	י	ה	י	ה	ע	נ	ו	ה	ה	ש	ו	י	א	ר	א	ת		
72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
ה	ל	י	ל	ה	ל	י	א	ל	ז	ה	ק	ר	ב	ז	ה	ל	י	ל	ה	ל	י	ל	ה

"'And it came between the camp of the Egyptians and the camp of Israel; and it was a cloud and darkness to them, but gave light by night to these, so that the one came not near the other all the night' . . is, in the first place divided, and read from right to left, beginning at the top, as exhibited in the following diagram:

9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11	10
27	26	25	24	23	22	21	20	19
36	35	34	33	32	31	30	29	28
45	44	43	42	41	40	39	38	37
54	53	52	51	50	49	48	47	46
63	62	61	60	59	58	57	56	55
72	71	70	69	68	67	66	65	64

“It is then divided in the following manner and read from left to right, beginning at the bottom.

65	66	67	68	69	70	71	72
57	58	59	60	61	62	63	64
49	50	51	52	53	54	55	56
41	42	43	44	45	46	47	48
33	34	35	36	37	38	39	40
25	26	27	28	29	30	31	32
17	18	19	20	21	22	23	24
9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8

“Whilst the third of these three verses,

25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
 וַיִּט מֹשֶׁה אֶת יָדוֹ עַל הַיָּם וַיּוֹלֶךְ יַהֲוֶה
 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26
 אֶת הַיָּם בְּרוּחַ קְדִים עֹזָה כָּל הַלֵּילָה
 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49
 וַיִּשָּׂם אֶת הַיָּם לַחֲרֵבָה וַיִּבְקְעוּ הַמַּיִם

‘And Moses stretched out his hand over the sea; and the Lord caused the sea to go back by a strong east wind all that night, and made the sea dry land, and the waters were divided’— is divided as follows, and read from the right, beginning at the bottom :

72	71	70	69	68	67	66	65
64	63	62	61	60	59	58	57
56	55	54	53	52	51	50	49
48	47	46	45	44	43	42	41
40	39	38	37	36	35	34	33
32	31	30	29	28	27	26	25
24	23	22	21	20	19	18	17
16	15	14	13	12	11	10	9
8	7	6	5	4	3	2	1

These three verses . . . are then joined together *in groups of three letters*, in the order in which they are read in the last three diagrams; they then yield the seventy-two Divine Names—

כהת	אבא	ללה	מהש	עלם	סיט	ילי	והו
חקם	הרי	מבה	יזל	ההע	לאו	אלד	הוי
חהו	מלה	ייו	נלך	פהל	לזו	כלי	לאז
נתה	לכב	אום	ריי	שאה	ירת	האא	והו
יחו	רהע	חעם	אני	מנר	כוק	להח	יחו
ההה	עשל	ערי	סאל	ילה	וול	מיך	ההה
והו	מבה	נית	ננא	עמם	החש	דני	והו
נמם	ענו	יהה	ומב	מצר	הרח	ייל	נמם
דמב	היי	יכמ	ראה	חבו	איע	מנק	דמב

"The limits of this essay" concludes Professor Ginsburg, "preclude the possibility of treating in detail the seventy-two Divine Names. . . . Refer to sohar (Exod. XIV: 19 - 21) and commentaries and to Bartolucci, *Bibliotheca Magna Rabbinica*, (Paris IV, p. 230)."

Now for the purpose of testing how such an arrangement might have applied to the practical mechanical working of the Oracle of the Breastplate, I made a simple subdivision of the last concrete diagram into three sections, to correspond with the possible sortations of the twelve loose stones, appropriately divided among the three corresponding pockets or subdivisions of the Oracle pouch. For purposes of illustration, I will note each subdivision of the seventy-two names, with its corresponding pocket A, B, C, as follows:

POCKET A

והו	ילי	סיט	עלם	מהש	ללה	אבא	כהת
הזי	אלד	לאו	ההע	יזל	מבה	הרי	חקם
לאו	כלי	לוו	פהל	נלך	י	מלה	חהו

POCKET B

נתה	האא	ירת	שאה	ריי	אום	לכב	ושר
יתו	להח	כוק	מנר	אני	חעם	רהע	יז
ההה	מיד	וול	ילה	סאל	ערי	עשל	מיה

POCKET C

והו	דני	החש	עמם	ננא	נית	מבה	פוי
נמם	ייל	הרח	מצר	ומב	יהה	ענו	מחי
דמב	מנק	איע	חבו	ראה	יכמ	היי	מום

Each of the three sections contains twenty-four of the divine Names, which corresponds exactly, as will presently appear, with the differing combinations possible to four similar objects of different shades of colors, when taken at random, *three at a time*. Meanwhile, bear in mind the well-known form of the Breastplate, with its twelve engraved jewels in three rows, four stones in each row. Imagine a small slot on the face of the Breastplate, say at the bottom of each of these three vertical rows of stones. This aperture or slot, should be just large enough to receive three of the four small rounded stones from the pouch, corresponding in colors to the row of set stones above the aperture. Each slot of course, would have its own separate channel leading back to its own particular pocket of four of the twelve loose stones, and large enough to disclose the combination thus formed, without their falling outward.

It would have been a matter of very simple manipulation on the part of the priest to cause some three of the loose stones to appear in the particular slot appertaining to the particular section to which his mnemonic system assigned the question asked. He could not foretell which particular sortation of three should appear. That was Destiny's affair. But what ever combination did appear, that was his key to the answer.

It is interesting to note at this point that the Chaldean numerical system upon which "Tablets of Destiny" might have been based, was sexagesimal. Multiples of six were therefore the most natural divisions. For the sake of this illustration, let us suppose also that the stones are numbered from 1 to 12, each number designating a certain stone *which Aaron identified by its shade of color*.

Also for the sake of the illustration, I will use our own numerical signs or figures and let 0 stand for 10, a dash (—) for eleven, and a cross (X) for 12, in order to use *single* signs and avoid confusion. Now let 1, 2, 3, 4, stand for the stones in the *first* pouch A. The twenty-four possible combinations of these colored stones, taken three at a time, beautifully conform to

the sexagesimal system, falling naturally into four sets or classes with six combinations in each class, thus:

123	213	312	412
132	231	321	413
124	214	314	431
142	241	341	432
134	234	342	423
143	243	324	421

There is not another possible combination. The other two sets in separate pockets, namely 5, 6, 7, 8 for pocket B, and 9, 0, —, X, for pocket C are susceptible of course, to exactly the same number of combinations, twenty-four each, thus making up the seventy-two.


It is perfectly conceivable that the priest might have had a list of seventy-two typical answers, wisely, even prayerfully prepared in good faith, to cover, in a general way, all conceivable exigencies in the simple life of those days. So that there was in reality, no need of pretense, deceit or fraud, as Renan seems to have assumed there always was. On the contrary, is there any conceivable way, whereby Destiny was given freer play to point the way to the Oracle's true answer?

This method at least, shows clearly, that a theoretically, well-nigh perfect and a thoroughly practical scheme was possible with the famous Oracle of Aaron's Breastplate, and we can easily imagine it must have been tremendously impressive and effective in use. We have seen how explicitly authorities state that the operation of the oracle required that the high priest should FACE THE LIGHT—the radiant brightness of the Shekinah. The one who was seeking light on a difficult question must face the oracle. He must stand facing the priest, thereby looking directly at the magnificently impressive Breastplate. The answer is of great moment to him. When the highly polished (but concealed), mirror surface gathers those bright rays and sends them flashing back through the three different colored gems that suddenly appear in one of the three slots—could he help but be thrilled?

He stands in suspense, fascinated by those glittering colored rays. No one but a duly qualified priest, (usually a Levite) could apply the key and render the answer which those three gems announced. Could anything be more strikingly effective than that? Such a startlingly beautiful demonstration of power could never lose its fascinating charm—and, it seems, it never has. For though lost to sight since David's time, scholars have never ceased to probe, and Jews have never ceased to secretly long for a reinstatement of the glories of the Past, when there shall stand up a priest with Urim and Thummim, qualified to "eat of the holy things." And according to King, there is yet a possibility, nay probability, that those incomparably magnificent jewels will be brought to light.

It is needless to add that my tabulated numerical arrangement for the modern Tablets of Destiny, or ORACLE OF ELLU, which I have elsewhere called the Chart of the Motor Setting Centre, is merely an amplification of that unparalleled scheme for interviewing Fate, where instead of the limited seventy-two answers, sufficient for a simple age, I have provided SEVEN HUNDRED AND TWENTY-NINE, to cover the wider scope of the infinitely diversified interests of modern life.

The Oracle of Ellu.

FTER all is said and done, perhaps there be those who still have a lingering doubt that this matchless Oracle of ELLU, will not only answer questions truly, but that those answers will "*come true.*" To such as are inclined to say "show me," all I need say is "there's the Oracle, test it for yourself and SEE for yourself," and so I might come to the word "*finis*" at once and done with it, confident in its own powers to make good. And, really, such bumptiousness would only be meeting the intolerance of skepticism half way, but it would be so unscientific, and so utterly out of keeping with the spirit of the book, that I am constrained to make further effort for the sake of those who say "yes, admit the *fact*, but I do not yet see *how* it may be." The usual refuge when psychic matters are thus pushed to the limit, is to refer them to the "*unknowable.*"

Unknown it may be, but is it necessarily unknowable? Of course the sagacious and enquiring reader is already prepared for two leading inferences from scientific facts, which inferences may be noted as follows:—

(1) The Law of Probabilities is the particular factor that determines the co-ordination of the influence of a future event with the influence of a past event that shapes *the* inevitable event of the Present Moment. It is therefore the factor by means of which ELLU, (one's personified Individual Independent Intelligence), knows the future.

(2) And the superior knowledge of those laws possessed by ELLU, gifted by nature with instinctive, instantaneous, powers of perception.

The law of probabilities is perhaps the least popularly known, because the hardest to expound, in fact the most inexplicable in view of man's blind propensity to gamble, of all that man has ever labelled "law." Perhaps the best exposition of this law ever reduced to writing is found in the *Memoirs* communicated by Laplace to the Academy of Sciences, something over a hundred years ago. "But," says one writer, "Laplace treated the subject so profoundly that few have ever been able to master his work completely," and he refers the English reader to the valuable but easier works of Galloway, De Morgan, Poisson, Gauss and others.

Stated in general terms briefly, the mathematical Theory of Probabilities is based upon a very refined *analysis* of all *possible* combinations of given factors which may reach enormous numbers, by rules, simple enough in theory but which to work out in practise, sometimes involves the most stupendous and appalling labor. That is the very reason why the infinitesimal calculus and a table of *logarithms* were invented; one of the most powerful engines of the higher mathematics. "But," says the writer last quoted, "powerful as logarithms are, *analysis* furnishes instruments almost infinitely more powerful."

And, if previous chapters have not already established the fact that the human mind possesses, *in its rare moments of abstraction*, the power to perform an almost instantaneous analysis of the most intricately involved factors of a difficult problem, arriving at a true result, without rule or conscious effort, it is vain to proceed further. But taking that fact for granted, the next point is, that the *conscious* application of the exceedingly abstruse and difficult theory, or law of probabilities, to effect practical and absolutely certain results, is found in the sciences of Chemistry and Astronomy, which furnish the most striking examples of its usefulness.

Indeed, it may be stated most emphatically, that but for a certain branch of the Theory of Probabilities, known as the *Method of Least Squares*, the science of astronomy could not possibly have attained its present majestic eminence as a positive science. But the *Method of Least Squares* is so far beyond the scope of language alone to explain, or of ordinary mathematics

to demonstrate, that only born geniuses like Newton or Laplace, or minds profoundly trained in the higher mathematics, can form any intelligent grasp of its application, in theory.

Yet in practise examples of even more amazing powers are numerous. See part II for detailed accounts of prodigies of instantaneous and unconscious analysis performed by the child Zerah Colburn, and the half idiot Buxton. All this goes to show that while actual *exhibitions* of such extraordinary powers are rare, the latent potentiality is probably universal. In fact history is teeming with indubitable proofs of the existence in common human beings, of a latent faculty which *may* perceive instantaneously true results far beyond the intellectual, reasoning out power of the individual. On the other hand, we may call to mind that it is related of that intellectual giant, Newton himself, that when he at twelve years of age, had convinced the professors at Oxford of his astonishing powers, he could *not* explain *how* he had arrived at the results which so confounded as well as convinced them.

He knew it instinctively, that is all he could explain about it. Of course, now we know that it was his ELLU which whispered the results to his consciousness, with the simple result that he KNEW that he knew.

How else could he have perceived those amazing facts of nature, even more deeply hidden than the all-pervading, far-reaching secret of gravitation? I mean of those subtle and beautiful symmetries existing between the numerical ratios of vibrations, that science has proved do in fact exist between certain tones or sounds, and certain shades of color. The scientifically logical result of which is that the vibrations of sound may be made sensible to the eye as Form, as Chaldni has demonstrated and color as Leadbeater explains, as well as to the ear as music.

How else could Newton have formed his first conception of the stupendous powers of the spectroscope? Concerning which the great Darwin said, "His separation of sunlight into its component parts marks an achievement in man's advance such as the world has not seen since the time of Archimedes." And of which Laplace said, "His work was pre-eminent above all other products of the human intellect."

That is what it is to be on well balanced terms with one's own Independent Intelligence.

When we see what prodigies of perception are achieved, by even a partial and painfully attained knowledge and more or less halting and feeble application by science, of the great Law of Probabilities, is it not conceivable that the mind that could master and apply it *completely* would be next to omniscience in powers of perceiving the future? It is further conceivable (by reason of mathematical prodigies), that one's Independent Intelligence does in fact completely perceive the hidden workings of that law.

So, also, it is conceivable that it may influence, in ways quite scientifically legitimate, the combining of the crystals in the little box, in the direct forming of the various letters of the Autopsychic Alphabet, to spell out a direct answer to a question without any reference whatever to the prepared tables of questions and answers, which constitute in reality only a minor part of the Oracle of ELLU.

After all, as to the deeper metapsychic theory on which the Oracle of ELLU is so effectively operative, very little more need be said here. Abler minds will trace the subtle connections of ELLU with soul and divinity—a spark of which it most assuredly is. To have personified the *human* Instinct as ELLU, was but to give a pleasing name to that too vague element of the Divine, which surely exists in man. But, as thus far, every divergence into theology has been conscientiously avoided, we drop that inevitable branch of the subject here, with the remark, that beyond all doubt the best thing *anyone* can do, is to see how quickly he can put himself on good terms with his own ELLU.

But in reference to the mere mechanical working of the Oracle, by means of the prepared tables of classified questions and answers and the wonderful Square of the Motor Setting Centre, believe me, it is the merest child's play for ELLU, who, (as personifying Instinct), you must not forget, even the most materialistic biologists in the world will tell you, presides over—has absolute dominion over, the unconscious operations of the life processes, of every organic vital action, of heart beat, of secretions, of circulation, of nutrition, of building up and breaking


down of tissue and cell, which they have broadly named *metabolism*—the merest child's play I say, for this powerful Intelligence whose work all this is, to instantly perceive (through his psychic powers), which one of the possible combinations of the crystals in the little box would lead unerringly to that particular one, out of fifty-two pages of answers, which will most nearly correspond to the destined eventuation of the future circumstance or condition asked about, and cause a tremor of the wrist, a pulse beat, a sigh, or a muscular start, which shall so apply and direct the centripetal, centrifugal and gravitation laws that govern equally the least and the greatest movement in the universe, to thus actually determine which one of the possible combinations of the little crystals shall gleam from their respective places in the slot.

So also it is easily conceivable that when the wife of the aeronaut Forbes, saw in a dream, eight hundred miles away from the scene of his disaster, his wild ride through the clouds, the collapse of his balloon and its swift descent, that it was her pre-scient ELLU, manipulating during her sleep, the marvelous *dream mechanism of her brain*. That there *is* such a perfect mechanism there is no manner of doubt. Dr. A. A. Brill of the department of psychiatry and neurology of Columbia University of New York, is, I believe, the first scientist to point out this fact in definite terms.

At least this much is certain, there is nothing inconceivable, as scientifically possible, in the basic proposition thus stated. And practically, as matter of fact, if I were to relate but a small portion of the astonishing verifications which time has never yet failed to make, of the true answers I have received from this Oracle, during the score or more of years that I have tested it in private, it might be set down as a pecuniarily interested statement on the part of the inventor, and receive credence accordingly, but I can assure you it would surpass in human interest, and in strangely puzzling antecedent appearances, the most deeply ingenious of all the works of fiction I have ever read.

Directions

For Using the Oracle of ELLU.

HESE directions refer only to the use of the Oracle in connection with the Tablets of Destiny and chart of the Motor Setting Centre. For *direct* use of the crystals, as a psychic alphabet, spelling out answers to all unclassified questions, the reader is referred to what is said elsewhere in this volume. For using the Oracle otherwise, the very first consideration is that the operator select, carefully and thoughtfully, the precise question he or she may desire to ask. But it is to be remembered that this prepared list is in a sense, general, to cover the most common of the widely diversified subjects that touch human life and interest most intimately. And that any more specifically personal question which one may desire to ask, can be put, by simply selecting the question in the general list which comes nearest to covering the particular case in mind, and then mentally altering or qualifying the general question selected, to fit the specific circumstance to be enquired about. Similarly, a mental application of the general answer, can be made secretly by the operator; so that, even if others were looking on, and saw the general question selected, and the answer received, still only the operator would know the *real* question asked and the *real* significance of the answer.

Such answers will never fail in any instance to be an appropriate reply, provided no mistake is made on the part of the operator himself. And, let him take care that he abides by the decision of his own ELLU thus expressed.

(2) Having thus, figuratively speaking, called out to his mental wireless, as it were, "Hello, Central, give me MYSELF," the operator is to FACE THE LIGHT. Then, with *attention* fixed distinctly, not vaguely or indifferently, upon the gist of the question selected, the crystals are to be rolled about in the box so that they freely intermingle, before falling, (apparently at random), into combination in the slot. *Never reverse this order of procedure: First, fix the mind on the question; then roll the crystals.*

For the sake of easy illustration, let us assume that question No. 12, is the one thus fixed upon, and that the combination which gleams from the aperture when the book is opened, is blue, blue, white, in the order named, reading in the usual way from left to right. (In the Autopsychic Alphabet, this is the letter R, but *here*, it merely indicates one of the twenty-seven horizontal rows of letters and figures on the index chart.)

Next, the operator is to find the *vertical* column of letters and numbers, which the number twelve indicates; (12 being the number of the question asked, and the *even* numbers of questions being at the bottom, and the *odd* at the top of the large chart). Then find on this chart the *horizontal* column, opposite which the combination in the aperture is flashing its colors, namely blue, blue, white. At the point *where such two columns meet and intersect, they form the cell or small square*, (in this case C-413), *which is the key to the answer*. (The fifty-two "Tablets of Destiny," otherwise answers, being paged by large letters, and the combinations thereon doubly identified by the numbers, to prevent mistakes.)

The above specific example is offered for the double purpose of illustrating, not only the method of operation, but the singular wit and wisdom of the Oracle of ELLU. For it relates to an actual occurrence, which I may be pardoned for introducing here, for the above specified reasons; all the more as I refrain from mentioning names.

Once upon a time, a number of my acquaintances met at my house. Among them was one who was somewhat distinguished for his boisterous and litigious demeanor generally, but which on the whole, more often dwindled to small acts of petulance, rather than ripened into the graver deeds of unscrupu-

lousness common to habitual litigants. He had just given vent to a particularly ferocious threat to punish some fancied or real trespass of his rights, somewhat after the manner of the celebrated Mr. Boythorne, "with the utmost severity of personal chastisement, and with the utmost rigor of the law," when it was insinuated by one of the friends present, to the effect, that as matter of fact, when it came to action, which it rarely did, the gentleman had invariably gotten the worst of it in both phases of his vengeance; inasmuch as the "mailed fist" and the "loaded dice," had always turned out to be in possession of the opponent and the law.

"That's the very trouble," quickly retorted the litigant, "that's the very reason why I never get justice. It is because the loaded dice of Law were first invented by legislation to circumvent the laws of God and Nature. Now if I could try my cause by the infallible and impartial laws of Nature, I should win nine times out of ten, at least, and I know it."

At this interesting point, I interposed the remark that I knew of a way as perfect as the Urim and Thummim of old, by means of which he could submit his present case to the "infallible and impartial laws of Nature," and that if he was really and earnestly disposed to abide by the counsel of those inscrutable laws, which is always incomparably wiser than human reason, (which cannot disentangle itself from personal motives and influences, even if it would), I would put the question in good faith, to my own private Oracle, which operated only by virtue of the very laws, absolutely unbiased, which he desired to invoke.

Evidently, some knowledge of the existence of my private Oracle, which for years I had tested in secret, had leaked out, for there was an instant attention all around.

"Make your assertion good," urged one.

"Go ahead," said another, "Try your case in the court of Nature."

"How can I consult your Oracle?" bravely asked the would-be litigant.

"By simply framing a plain question," was my reply.

So, the upshot of it was, the double barreled question to the effect, "Is my cause just; shall I win if I go to law?" was settled upon.

Whereupon we retired to my room and put the question No. 12, of my Code, previously referred to, and obtained the combination *blue, blue, white*, which, referring to the chart, as stated, led to the cell, C 413. Then referring to the Tablet C combination 413, I copied the answer there given, and returning to the company, the litigant, immediately opened the slip and read aloud:

"No, keep out. Your character and your reputation would never recognize each other in a court of law."

The litigant joined heartily in the general laugh that greeted this reply. However, as I was afterwards informed, the sequel proved, that even the brutal frankness of the "Laws of Nature" thus invoked, was not sufficient to deter him from pursuing his previously reasoned-out decision to sue anyhow. But the unmerciful drubbing which he received, both from his adversary *and* the law, was his punishment for defying the Oracle of ELLU.

Directions — Condensed.

For using the CODEX—ELLU by means of the Chart of the Motor Setting Centre.

1. Take a position so as to FACE THE LIGHT (remembering never to consult the Oracle while angry or excited).
2. Fix ATTENTION on the question selected, (varying it mentally to suit any particular circumstance).
3. Note mentally the NUMBER opposite the question selected.
4. While still facing the light, first cause the crystals to intermingle freely, by allowing them to run once around the box before falling into illuminated combination.
5. Look on the left margin of the chart for the COLOR COMBINATION that exactly matches the order of the three luminous crystals now standing out—gleaming in the concentrated light of the aperture.
6. The cell formed by the INTERSECTION of the horizontal color combination column, with the vertical question column, bears the LETTER (the answers are paged alphabetically), and *number* of the Oracles' answer to your question. The number and the color combination there form a double check against errors. Against the right answer is the same number of the index cell, and the same color combination that now shines from the Oracle. Otherwise *you* have blundered. The sweet spirit of your ELLU makes no mistakes. Heed it well.
7. When the combination of *three reds* appears in the illuminated aperture, refer to the last two pages of the CODEX—ELLU or Tablets of Destiny.

Questions

The New Ritual of the Whispered Charm

(Whisper)

OH LOVING ELLU WITH COLORS INDITE
YOUR MESSAGE TO ME IN FLASHES OF LIGHT.

FACE THE LIGHT

Questions of the Oracle—Elli.

- 1 *Is this the psychological moment to ask my question or are adverse influences present, visible or invisible, that might affect a true answer?*
- 2 *Is the present state of my feelings a portent of coming good or coming ill? Can I improve my power to interpret my feelings?*
- 3 *Shall I attain and retain physical and mental health and strength to a good old age?*
- 4 *Will my present state of health improve or deteriorate?*
- 5 *Will the patient recover?*
- 6 *Is the absent one well and happy and what is he or she now doing?*
- 7 *Is the habit which I tacitly recognize as my "besetting sin" gaining the mastery of my will?*
- 8 *Will the efforts to reclaim the wayward one to better things be successful?*
- 9 *Shall I succeed or fail in my present undertaking?*
- 10 *Shall I gain or lose the particular wish and desire of my heart which I am now holding in my mind?*
- 11 *Shall I win or lose my case at law?*
- 12 *Is it worth while for me to go to law in the present emergency?*
- 13 *Shall I gain in popularity and preferment politically or otherwise?*

Questions of the Oracle—Ellu.

- 14 *Shall I close the contemplated transaction now, or defer action?*
- 15 *Shall I persist in my present pursuit, trade or profession, or make a change?*
- 16 *Shall I gain or lose pecuniarily in the speculation now inviting me?*
- 17 *Shall I obtain the aid I am seeking, to help me over my present difficulties?*
- 18 *Will the lost or missing person or thing be found and the mystery solved?*
- 19 *Will the present estrangement grow or end in a happy reconciliation?*
- 20 *Will the one I am now trusting prove true or false to me and my interests?*
- 21 *Does the one I now hold in my thoughts have any special or tender regard for me with a view to matrimony?*
- 22 *Is it best for me to marry or remain single?*
- 23 *Will the contemplated marriage prove prosperous and happy?*
- 24 *Is the hitherward stork bringing a boy or a girl baby, and will the issue be without danger?*
- 25 *What does my dream signify?*
- 26 *Which of the alternatives now presented in my affairs shall I accept?*

Key to Answers
or
Chart
of the
Motor Setting Centre.

An explanation of a few of the many
surprising numerical wonders of the within chart,
and the manner in which it may help throw some light on the
marvelous operation of the motor setting centres of the
human brain mechanism, in producing INSTINC-
TIVE actions and memory, will be found
in Part Two of this book.

CHART OF THE MOTOR SETTING CENTER

TOP OF CHART QUESTION COLUMNS READ UP AND DOWN

QUESTIONS

1	3	5	7	9	11	13	15	17	19	21	23	25
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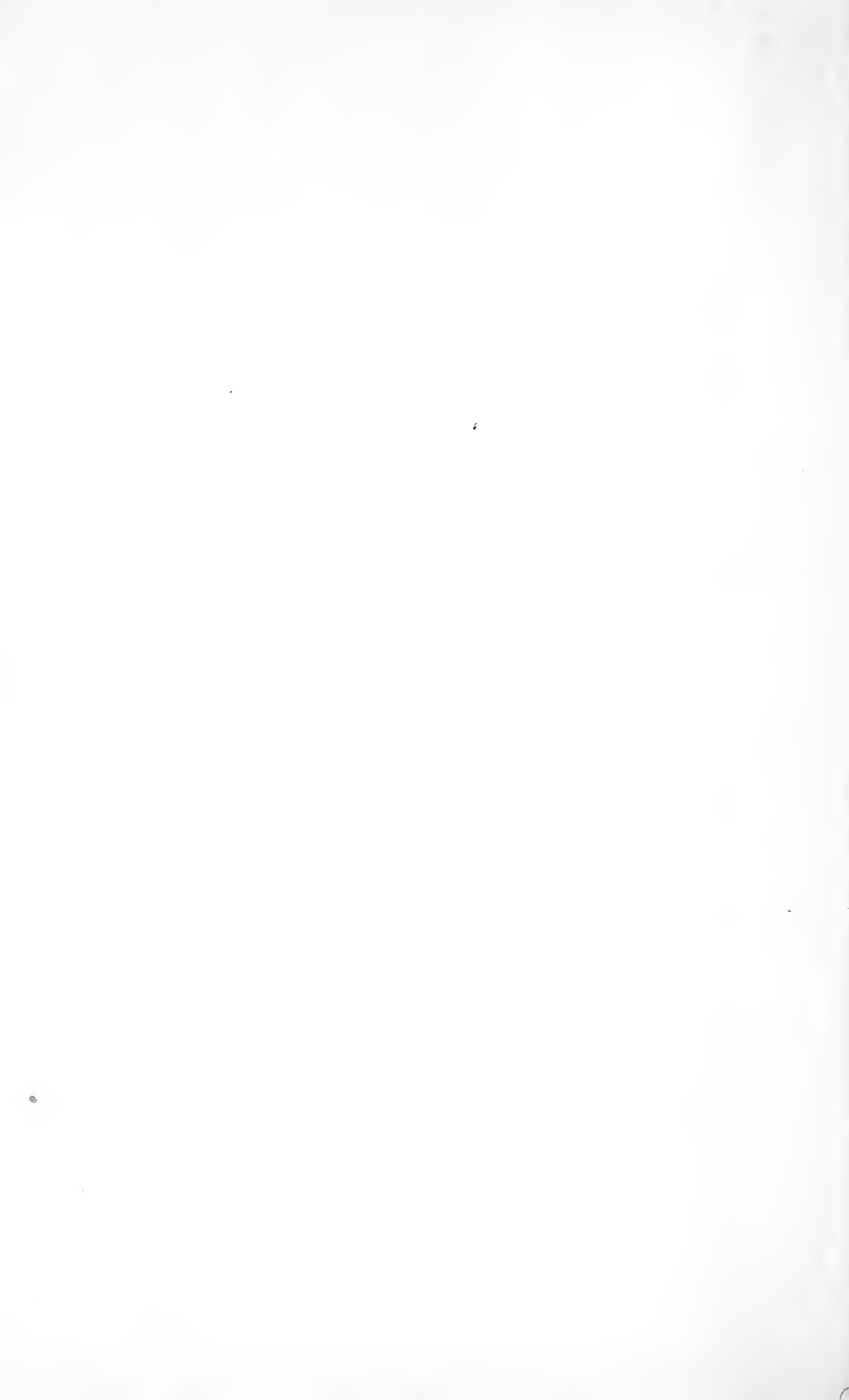
WERS
COLOR COLUMN WITH QUESTION COLUMN.

Patent No. 880640, 1908. Other claims applied for.
Copyright 1910. All rights reserved.

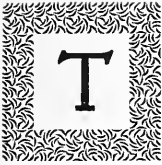
QUESTIONS

ANS _____ KEY TO ANSWER IS CELL AT INTERSECTION O

The Codex—Ellu



The Codex — ELLU.

 THE primary motive of the autopsychic alphabet, as explained, is to furnish a more perfect means of communicating with the unknown intelligence that is believed to mingle in human affairs, than has heretofore existed. That is to say, where the alphabet is used by the *direct* method, to spell out words, letter by letter, without the intervention of either an oracle or of any brain mechanism of a psychic or clairvoyant, but wholly by one's psychic powers alone, and even then to eliminate absolutely every vestige of the mind, or conscious "personal equation."

But the present purpose is to apply the scheme in an auxiliary or secondary way; where a simple automatic movement of the crystals, free from the conscious control of the individual operating, results in an instant, visible symbolization of a *swift and complete ideation*, beautiful and pleasing in the extreme, by means of which symbol, the nearest expression of the ideation in words, is quickly found and read in the CODEX — ELLU or Tablets of Destiny, instead of by the more slow, laborious and faulty spelling out of words in the old cumbrous and bungling way.

This application of a subtle principle — removal of the fatal element of the *personal equation*—, is NEW, never before having been accomplished—at least not in modern times.

The CODEX—ELLU—Questions and Answers—, cover in a general way a wide variety of subjects, of the most frequent and common human interest: It is therefore, obvious that each of these questions may stand as representing a CLASS of subjects, which any operator may vary to suit a very great variety of particular individual circumstances, and which may thus be made to cover every possible phase of personal interests. That is to say, it is perfectly obvious that any person desiring to consult the oracle, may silently, secretly change, mentally, the phraseology of the particular question selected, that comes nearest to filling or meeting the particular circumstance which he or she may desire to enquire about, and then, correspondingly applying the answer received; so that a practically unlimited range and scope of questions may be propounded under this very simple code.

—ooo—



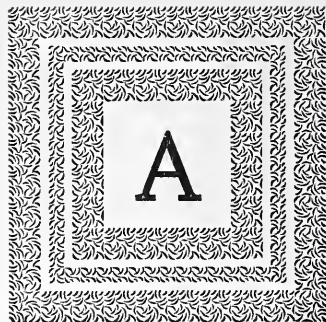
Answers

or

Tablets of Destiny

for

The Oracle of Ellu.

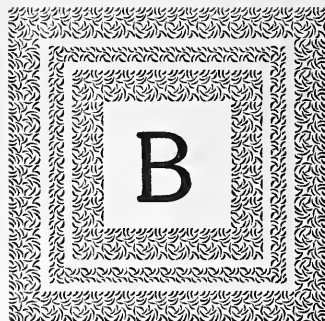


- 392 If there is the slightest trace of anger in your mind, desist until you can sweeten up.
- 362 The one that comes nearest to your natural bent of mind, accept without hesitation.
- 360 That you were born red and have grizzled prematurely ever since; therefore Fletcherize to keep the red.
- 358 The flying stork is bringing joy, he's bringing to your home a boy, and happiness to his mother.
- 356 Yes—If no harsh words or looks annoy the smooth, deep current of domestic joy.
- 354 Don't "sigh to think you still have found your warmest welcome at an Inn."
- 352 You win the maiden with fancies finer than her delicacy; the matron with bolder materiality.
- 377 Courage always mounts with occasion. The friend is true to the full extent of your trust.
- 375 Imaginary difficulties are but a painted Jove, with idle thunder in a painted hand.
- 373 Advertise and Communicate;—Thoughts shut up spoil like hay unopened to the sun.
- 371 Do not borrow if you can avoid it, but do not fear a useful debt.
- 369 If you lack judgment of properties involved, stay out until a tried friend approves.
- 367 Don't quit until you are a hundred point man in this occupation. Then mount higher.

A

FACE THE LIGHT

- 365 Indecision of character is your worst fault. Act now—
This is your opportunity.
- 363 You need enthusiasm. You are too slipshod and half-
hearted in your methods.
- 361 Justice is a commodity and the price is prohibitory in
all courts except Nature's.
- 359 No—unless you win it before you go to court by a more
perfect preparation.
- 357 Here is a most elegant opportunity for a mistake,—but
without mistakes there's no real progress.
- 355 Your success depends upon conformity with the dictum
of science in this matter.
- 353 Do not be over anxious. The waywardness is not as
bad as you think.
- 378 Do not be hypercritical. The habit is easily under your
control if you believe it.
- 376 There has been an accident, but the patient is happy with
prospect of speedy recovery.
- 374 Hope deferred makes the heart sick—but unremitting
nursing saves the life.
- 372 Morbid mentality bred the first disease, avoid it and you
shall improve. Forget it.
- 370 Do not expect age to perform the promises of youth—
perform them yourself—now.
- 368 Your intuitive perceptions are as much facts as the sun
in heaven and the shadows on land.



- 420 Every desire predicts its own satisfaction; as "man's attractions are proportioned to his destiny."
- 418 If there is any fear present in your soul at this moment, wait until you banish it.
- 388 Take that one in which legality is least doubtful, or humanity most prominent.
- 386 That no one has yet had the slightest success unveiling the mystery of life, for want of the learning of sleep.
- 384 Hurrah! It's hard to beat a double pair! Fire off again your double barrel gun.
- 382 Yes—Be to her virtues very kind, be to her faults a little blind—(his'n too).
- 380 The love of the sexes is initial and symbolizes the passion of the soul for the divine.
- 405 Your case is not hopeless, for love can hope where reason would despair.
- 403 Not all the waters in the rough, rude sea can wash his loyalty away.
- 401 "Right is more beautiful than private affection; and love is compatible with universal wisdom."
- 399 Take not such pains to waylay and entrap that which will of itself fall into your hands.
- 397 Persist in your efforts. Your own will come to you. Hold to the thought of winning.
- 395 If you want food for speculation, ransack botany and find a new food for the belly of man.

B

FACE THE LIGHT



393 If your present work suits your temperament it's right, if not hunt one that is.



✓ 391 All unnecessary delays are dangerous. Strike while the iron is hot, if *you* are cool.



389 Popularity? too much of it's a curse; make a few enemies doing right.



387 Here's the old world and its atoms sound as a nut, and courts all shreds and patches.



385 On points of law by the judges, Yes—But if by jury God Himself cannot foretell results.



383 No! You are wishing for anchorage when you should be on the open sea.



381 Yes—but only to find that it was wanted only because it was hard to get.



379 Will is the only thing that can resist fate; brace up the will and win.



404 In the degree in which you are preferably pessimistic your habits control you.



402 Climbing a rough road happily in sight of destination—singing or trying to.



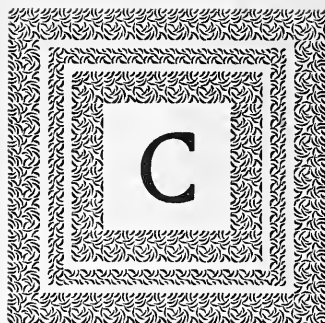
400 Yes—but remember that skilful nursing accomplishes more than many doctors.



398 Be wise with speed; a fool at forty is a fool indeed; Get a new set of teeth.



396 With ease and alternate labor, useful life, progressive virtue, a strong jaw and a will to use it.



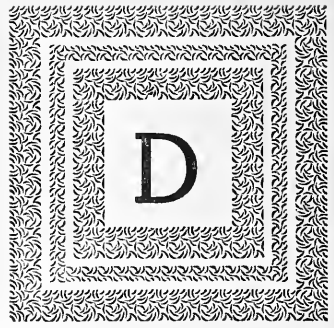
- 448 Your ticket for Elysium is not transferable, good for this trip only, time limit not specified.
- 446 The air is full of ruling instincts; follow your own or another will take possession and rule you.
- 444 You are not in the right frame of mind; quit worrying, make yourself serene.
- 414 Wisdom is the principal thing; in a multitude of counsel there is wisdom; in action more.
- 412 That when no wood is there the fire goes out, so when there is no tale bearer the strife ceases.
- 410 A boy—yet another certain truth of nature's lying hid and expectant for your intellect to divine.
- 408 It is better to dwell in a corner of the housetop, than with a brawling woman in a wide house.
- 406 Do not demand a description of the country towards which you sail; it's worth seeing for yourself.
- 431 Concentration and enthusiasm is the secret of all success, in politics, business or love.
- 429 Though he promises to his loss, he makes his promise good; a providence to the weaker sort.
- 427 A man hath joy by the answer of her mouth; and a word spoken in due season how good is it.
- 425 But optics sharp it needs, I ween, to see what is not to be seen.
- 423 The difficulties are not as serious as you think them—Be frugal and you will win.



C

FACE THE LIGHT

- 421 If you have given as much thought to character as you have to money, you are rich enough "already yet."
- 419 Smash ahead on the instinct; "a man never rises so high as when he knows not whither he goes."
- 417 Do as common sense dictates—Think less of expediency—*cultivate first thoughts*; they mean insight.
- 415 It was said of the most popular man I ever knew—"A gentleman everywhere at all times."
- 413[✓] No! keep out, your character and your reputation would never recognize each other in a court of law.
- 411 The courts will not uphold you unless you have done your stealing legally.
- 409 Yes! but remember chickens hatched in the spring come home in the fall to roost.
- 407 A partial failure here will score a deeper success than the one you are now seeking.
- 432 However discouraging appearances are at this moment, the husks and the fatted calf are coming.
- 430 The only doubt of overcoming your habit is your own doubt of yourself; brace up.
- 428 Following an instinct beyond the domain of thought; make a note of it to compare with verbal answer.
- 426 Yes—but remember God's pure, fresh air is life-giving and free; let the patient use it.
- 424 Trust a good physician's diagnosis; not necessarily his medicine; air and exercise are free.



476 Leave off thinking of your thoughts, and feeling of your feelings; do some useful thing; you will improve.



474 Happy the man who can say, Tomorrow do thy worst, for I have lived today.



472 "Trust your instincts to the end, though you can render no reason; it is vain to hurry it."



470 If you have an evil thought in your heart, leave the balls at rest.



440 Take counsel of wife or your next best friends; love will see the way more clearly.



438 Happy is the man who only strays in his sleep—make a note of it.



436 A baby girl with laughing eyes, is riding with the stork that flies.



434 "The fairest fortune that can befall man is to be guided by his destiny to that which is truly his own."



459 On Busyrane's gate: Be bold; On second gate, Be bold, be bold and evermore be bold; On third, Be not too bold.



457 You do not know the meaning of the simplest words until you love and aspire.



455 Let his quiet reserve reassure you, for smooth runs the water where the brook is deep.



453 A wrathful man stirreth up strife; but he that is slow to anger appeaseth strife.



451 Praising what is lost makes the remembrance dear—make the best of it—lest you forget.

D

FACE THE LIGHT



449 When you have done well what was assigned you, you cannot hope too much or ask too much.



447 Don't trust too much to luck in this matter; it is not luck that makes good steel.



✓ 445 God hates a quitter, at the same time, don't stick merely to be ungodly stubborn.



443 When you can pay every debt at maturity, fear not to undertake new obligations.



✓ 441 Never waste a moment planning revenge; forget it, time is too precious for squabbles.



439 Go not to extremes—The extreme of the law is the extreme of injustice—sleep on it.



437 The more your adversary blusters, the weaker his case. Keep quiet, lay low for ducks.



435 Well, you seem to be out of luck this time; pray God to help you.



433 The surest way not to fail is to determine to succeed; you have obstacles to overcome.



458 Continual kindness will win in the end and great joy follow—reclamation earned.



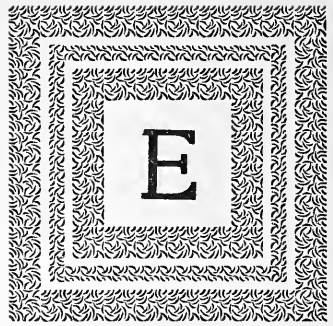
• 456 Do not hesitate about taking full command of yourself now; it is a critical time for you.



454 The absent one has a bad attack of grumps; disappointed in not receiving letters from home.



452 Trust a good physician and a good nurse, but be unremitting in your own efforts.

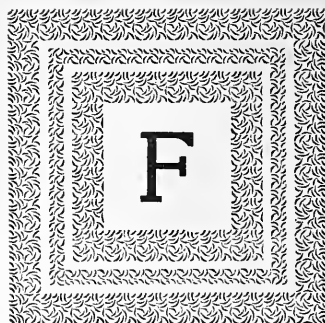


- 504 The penalty for transgression of a natural law is not eternal; the balance reached, the patient recovers.
- 502 The worst that can befall thee measured right, is a sound slumber and a long good night.
- 500 They that cannot have what they like, should like what they have. "Chew the rag" less and your food more.
- 498 There's no smoke without a fire; but the more smoke, the less fire there is.
- 496 Your ELLU that forms the combinations demands you first make amends for an injury done.
- 466 The man who succeeds is the one who is helped by a good woman—ask her.
- 464 That the brain in sleep takes impressions as wool takes dye, more lasting than the fabric.
- 462 A boy shall prove no love can be bound by oath or covenant against a higher love.
- 460 Miserable beyond all description the unhappy pair who argue reasons of domestic details each day.
- 485 Yes, a good woman's love lifts above the gray level of intellect to the realms of eternity.
- 483 Snatch the hasty kiss from the side-long maid at first opportunity and watch results.
- 481 Expectation fails most where it promises most, get mad and show 'em.
- 479 You never shall, so help you truth and God; embrace each other's love in banishment.

E

FACE THE LIGHT

- 477 Newton said he made all his discoveries by always *intending* his mind—Do likewise.
- 475 Yes! in a way you do not now dream of—be happy—the Lord will answer the prayer of effort.
- 473 You will gain a little money and lose sweetness, in proportion as you value the gain.
- 471 There is no place for you in any business till you quit the squabbles of the past.
- 469 Spontaneous action is always the best, to deliberate too much is to muddle guiding instincts.
- 467 Never fear that others will misunderstand you—Be true to yourself; be kind—don't explain.
- 465 No! For a bad compromise is better than a good law suit, any day in the year.
- 463 Yes! For thrice armed is he who hath his quarrel just, especially if defendant.
- 461 Modify your wish that its destined success may bring you no vain regrets on the morrow.
- 486 The favorable termination of your undertaking is assured, but be patient, relax no effort.
- 484 It is best sometimes that a malady runs its full course. It is so now—wait and hope.
- 482 Yes! but if you write down the date of every repulse of temptation you will soon have none to record.
- 480 At this moment consulting a wise doctor for indigestion, who wisely says, "more work—three dollars, please."

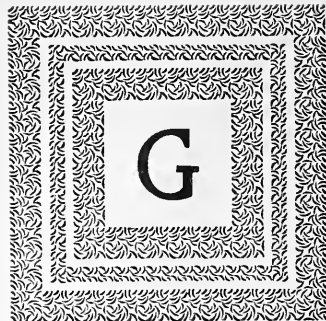


- 532 Killing his golden silence with the garrulous gabble and noise of empty speech.
- 530 The case is doubtful. Confidence and care possibly may avail,—a fighting chance.
- 528 So long as you *do* nothing useful, you prison yourself in the chalk circle of imbecility.
- 526 In idle wishes fools supinely stay; be there a will, and wisdom finds a way.
- 524 Coming events cast their shadows before. The nature of the shadow is revealed by the light of ELLU.
- 522 The adverse influence comes not from another personality, but from your own state of mind—Wait.
- 492 Take the one that involves the least strain on self respect and be happy.
- 490 The dead of midnight is the noon of perceptions beyond thought—write it down and watch.
- 488 A wee little lady comes this way, its mother's comfort, joy and stay.
- 513 Let the woman take her elder, more fickle by nature, his age helps her hold on him.
- 511 Defer not till tomorrow to be wise; tomorrow's sun to thee may never rise.
- 509 Yes, and desert places shall rejoice and blossom as the rose—if you irrigate properly.
- 507 Man's attractions are proportioned to his destiny; confidence begets confidence.

F

FACE THE LIGHT

- 505 A fellow feeling makes one wondrous kind, and kindness will open the golden door of reconciliation.
- 503 "Attempt, and never stand to doubt, nothing's so hard but search will find it out."
- 501 Be content with small help and work all the harder, and success is sure.
- 499[✓] It's a pity that you have time to devote to money making; a genius like yours should originate.
- 497 Don't go shooting for snipe when bears are in sight—however, hit the trail of your inclination.
- 495 Your first instinct was the right one. The crystals can only verify intuitions.
- 493 You don't need to think of it at all; just do better work, that's all.
- 491 If the honor of another is in your keeping, fight hard—even to the death, forgetting self.
- 489 Be scrupulously just regardless of whether you are to win or lose—and you cannot avoid victory.
- 487 Take heed before you act, is the wish worthy of you? recast it. Try the preliminary question.
- 512 If your plans are well considered, they will prosper. You are too prone to lawlessness, don't scatter.
- 510 Yes! already wayward unhappiness is growing irksome—right impulses are sprouting anew.
- 508 Every time you defer decision against a bad habit you grow just so much the weaker to resist.

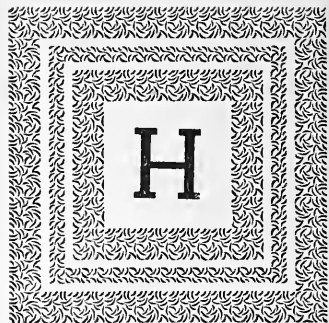


- 560 You are in great danger unless you overcome it *this time*.
Habit fixed is a relentless master.
- 558 In the company of young people, where laughter, music
and joy gladden the heart of age.
- 556 The patient will, in time, be a free spirit in a higher life,
and help shape your ideality.
- 554 Succeed in something. Success is the most life giving
tonic known to the world.
- 552 The best preparation for the future is to live now. Lear
trained his daughter for what he got.
- 550 It is good or ill, according as your ELLU partakes of the
rosy "Red." Watch for and *record results*.
- 548 There is no adverse influence or personality now present—
go ahead.
- 518 Read Ralph Waldo Emerson's essay on self-reliance. It
will exercise your powers of insight.
- 516 Here is the dictum of ELLU. The wider opens your
mind's eye, the tighter sleep shuts 'tother.
- 514 Still in the groove of indeterminate duality—ask this ques-
tion a month hence.
- 539 Love thyself last, God first, and that sweet neighbor as
thyself—make the most of the paradox.
- 537 To seek a substitute for Love is to set a candle alight at
both ends up to the sun.
- 535 Well, not exactly—yet—this is butterfly time for one
of you, crysalis for the other.

G

FACE THE LIGHT














- 533 Never trust your business to one who is not in some respects better than yourself.
- 531 Your if is the only peacemaker; much virtue in an *if*. If you meet half way.
- 529 When you can cloy the edge of appetite by the imagination of a feast.
- 527 Do not cross a bridge before you arrive at it. Your difficulties are about to vanish.
- 525 Better take fair chances than tie up your talent in a napkin; keep your money earning.
- 523 Be willing to merge your identity in the good of the institution you work for, or quit it.
- 521 There are twenty ways of doing this; one way is a short cut; reason follows nineteen; instinct, the one.
- 519 Be proud of what you do and think and say, and others will be proud of your acquaintance.
- 517 It were imbecile to go to law for the pride of an opinion which may change over night.
- 515 Fight for your rights? Oh, yes, but your only right is your right to be useful.
- 540 First be sure in your own heart that the wish results in no injury to another.
- 538 Do you really need this thing? Reflect, ponder well. You may thank God for failure.
- 536 The better nature of the wayward one is slowly evolving to better things.

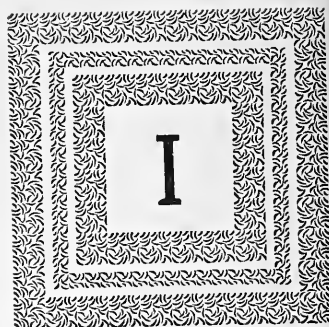


- 588 This you call waywardness was a necessary sort. It has a wise purpose. The end will be betterment.
- 586 The moment you perceive the first ill results from the habit, is the moment to quit.
- 584 In danger from an enemy; but a good lawyer is giving needed warning at this moment.
- 582 All earthly pleasures soon will cease, but joys unknown may then increase.
- 580 The strength of your desire measures what you are capable of accomplishing or attaining to.
- 578 Practise Fletcherism religiously, with due consideration for the rights of others as to noise.
- 576 It is the reflex effect of a dream you have forgotten. It was a warning. Record dreams that make an impression.
- 574 Now is the hour propitious. Proceed confidently and give heed to your answer.
- 544 Decide on the action that will cause someone else the least sorrow. That's wisdom. Get wisdom.
- 542 That you possess an independent intelligence, keener than your waking one; study to use it.
- 567 The kindness and truth of that same boy, his mother's constant source of joy.
- 565 In loving companionship life shall pass in sweet content, so long as mutual debts are paid.
- 563 Fly betimes, for only they conquer love that run away; 'tis absence makes the heart grow fonder.

H

FACE THE LIGHT

- 
[✓] 561 Falling in love is a matter of intermittent propinquity, the cure is propinquity—hitch up your chairs.
- 
 559 It is better to be deceived than to distrust, however this time your suspicions are groundless.
- 
 557 Beware lest the excusing of a fault make the fault worse by the excuse.
- 
[✓] 555 You can always distil some good from apparent evil; if your house burns on a cold day, warm your hands by it.
- 
 553 More than half your difficulties are imaginary. You exaggerate them. You will overcome them.
- 
 551 Yes, if you want to pay dear for a very little wisdom, better buy only to hold.
- 
[✓] 549 So you wish to get settled? Only so far as you are unsettled is there any hope for you.
- 
 547 The day has come. Get right down to the work of a decision now,—you have deferred too long.
- 
 545 Think yourself a god in the chrysalis and act worthily of the conception.
- 
 543 The hungry judges soon the sentence sign, and wretches hang, that jurymen may dine.
- 
 541 Only when you are prepared and have covered every point before going to court.
- 
 566 Desire is the most powerful force in nature. Use it only for worthy ends.
- 
 564 One accustomed to hard work is equal to any achievement resolved upon.



- 616 It will be well to modify your expectations in this matter for your success will be only moderately good.
- 614 Yes—everything in its course, impulses to right action are slowly but surely evolving.
- 612 Be temperate in all things and you have nothing to fear; pray God to help you.
- 610 Foolishly well; playing with fire; save up your oil of kindness for the blisters.
- 608 The patient has a chance—*confidence* is what is needed—a quiet confident nurse will save where medicine fails.
- 606 Instead of two bites with but a single chew, one bite with thirty's the thing for you.
- 604 With a good constitution, have the will to methodize your life and live a hundred years.
- 602 Good! This is a reflex from invisible influences for happiness; record dreams in the morning.
- 600 If you concentrate your mind on the question first, the answer will come true, without fail.
- 570 Fear, hate and prejudice deprive a person of power to arrive at correct conclusions—dispel them.
- 568 That thou shouldst thyself from flattering self-conceit defend; he who is most positive is most often wrong.
- 593 The small boy will be monarch of all he surveys in this happy home, unbereft of a mother.
- 591 If constant as the northern star and kind as the gentle rain to one another.

I

FACE THE LIGHT



589 Dare do all that may become a man; who dares do more,
is none, but love is blind.



587 Some cupids kill with arrows, some with traps; this time
with fraps and scraps and little mishaps.



585 If he seems untrue; it will be because his idea of your
best interests differs from your own.



583 A word fitly spoken is like apples of gold in pictures of
silver—(thirteen words, very lucky answer).



581 It were as easy a hap to pluck bright honor from the
pale faced moon as find this lost.



579 Overcome your fear of trouble and the cause will vanish—
you will succeed.



577 Little and often fills the purse, more certainly than long
chances.—Selah.



575 A change would do you no good unless the place seeks
you; make it.



573 The present is alone yours — don't shirk — contemplate
nothing but action.



571 One way is mind your own business thereby allowing
others to mind theirs.



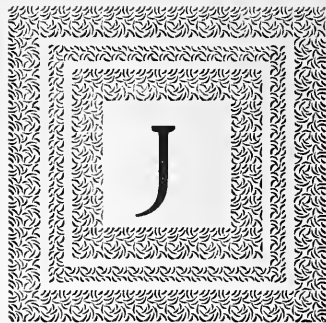
569 Though you think yourself locked up in steel, you are
naked if injustice corrupts your conscience.



594 The issue is doubtful in the degree in which you are
unprepared.



592 Nothing in the world can hold out against your persistent
desire—Never let it injure another.

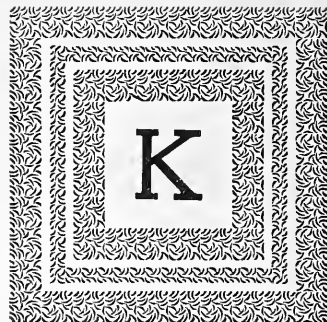


- 644 The heart is deceitful above all things and desperately wicked—Go slow.
- 642 You will succeed beyond your expectations and pride goes before a fall; be warned.
- 640 Get the wayward one interested to produce his best—be generous with praise and help.
- 638 Do not try to balloon ELLU above practical life, nor brown it in sensual excess—Cultivate faculties.
- 636 Writing you a letter which you will be glad to receive; see that you answer promptly.
- 634 Health will come with the slow sure progress of the gladsome Spring—and incessant chewing.
- 632 Whatever you do, don't worry—work your jaw not in bewailing but in chewing more.
- 630 An active interest in human affairs is the best aid to long life—"Those live longest who live most."
- 628 You can. ELLU rules next to soul. Its kingdom is more fair and fertile than that of reason.
- 626 There is no time like the present. Improve it, the balls are now responsive.
- 596 Resolve them into separate questions and trust the crystals; they never fail.
- 621 Cowards die many times before their death. Fear nothing, but record the circumstance.
- 619 *Her* happy smile and gentle ways, will make *her* loved through all *her* days.

J

FACE THE LIGHT

- 617 They in their earthly Canaan placed, long time shall dwell and prosper.
- 615 Decide now—for when a lady's in the case you know, all other things give place.
- 613 The truth is lying hid in the other's heart with a glad expectancy of the finding.
- 611 The person will be true to you to his cost. See that you reciprocate becomingly.
- 609 Out of the nettle danger you will pluck the flower—reconciliation—by a rescue.
- 607 Not without going to law, but law says, “take you the shells, we lawyers take the oysters.”
- 605 A glorious success is destined for you. Try to attain it without help; be heroic.
- 603 To succeed offset against the spasms of energy born of genius, the stern continuity of drill.
- 601 Tell no tales about your fellow workers. Quit that and do your own work well where you are.
- 599 You know nothing of the future, except in sleep; now is the time for action.
- 597 Don't be too intent on your character. Forget it—be natural and kind.
- 595 Possession is nine points of the law, but par is a thousand points, hard to win.
- 620 If your character is better than your case, you will rejoice at loss and think it success.

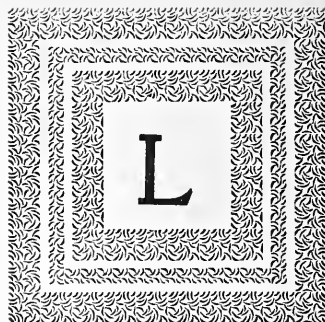


- 672 If prevarication will win, lose the case and rejoice in the rescue of respect.
- 670 Beware lest the undreamed powers of your appetency is your own undoing—Go slow.
- 668 Do not boast when the success ordained for you arrives; knock on wood and keep silent.
- 666 This is the number of the beast and the man; sensualities will fag and ideality will win.
- 664 Cultivate your powers of grouping abstractions and bad habits will lose their charm for you.
- 662 Taking an involuntary swimming lesson which will lead to a revelation if you cross-question.
- 660 The present illness surely does not mean that earthly joys by him'll no more be seen.
- 658 Cheerfulness and happiness directly affect digestion. Good digestion aids all the vital organs—Smile.
- 656 In so far as you neglect to use moderately any faculty so much of you is already dying.
- 654 Cultivate your powers of abstraction. So shall morning wake you to delight.
- 652 Point your finger at arm's length. If it trembles drink a glass of water, then proceed.
- 622 Decide quickly on the one that first forms in your morning thought.
- 647 Joyful news will come to you on the morrow. Fail not to record the fact.

K

FACE THE LIGHT

- 645 First a daughter then a son, and the world is well begun ;
keep it up.
- 643 Sure, because the love of the sexes is initial and symbolizes
the divine in nature.
- 641 The primrose path of dalliance is not so wholesome as
the broad highway of marriage.
- 639 The sad old moon at lovers' duplicity winks, so some-
where around's another dear charmer methinks.
- 637 This friend will endure much to remain loyal to your
interests ; trust him.
- 635 If the rascal has not given me medicine to make me love
him, I'll be hanged.
- 633 All things lost are hunted with more zest than possession
gives—so enjoy the hunt.
- 631 Destiny is kind to the hopeful in the end, hope on, hope
ever, but don't quit work.
- 629 Little skiffs must keep near shore, bigger boats may ven-
ture more.
- 627 Don't spoil your chance for a big promotion by seeking
a small one ; forget yourself in your work.
- 625 Do nothing rashly ; take one night's sleep upon it, then
decide on the morning's first impulse.
- 623 The receipt is kindness, and then more kindness—even
under injuries, and never tell of it.
- 648 Never go to law for mere vindication ; your friends don't
require it ; no matter for others.

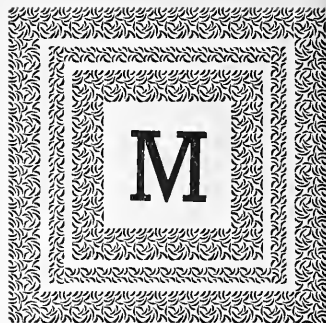


- 700 To go to law for revenge is to wilfully walk into fire;
don't save the oil of kindness for blisters.
- 698 The loss of this case will be a blessing in disguise; en-
tertain the angel well.
- 696 It were much better if your wish were to create rather
than to own.
- 694 You will be envied and admired for its bold daring and
brilliant success.
- 692 Anything that will arouse the self pride of the wayward,
will help.
- 690 Get acquainted with your own ELLU; then live up to
your conception of its approval.
- 688 Counting a pile of money just received—The happy con-
summation of your good advice.
- 686 The patient needs a long rest to recover former vigorous
health—change of scene will help.
- 684 Never look on the dark side. Cheerfulness and deter-
mination will accomplish much.
- 682 No man of woman born, coward or brave, but can influ-
ence his destiny, by proper chewing.
- 680 Analyze your feelings. You will probably find some *re-
gret* present to explain them.
- 678 There is an adverse perturbation. Wait a few minutes
and it will disperse.
- 675 Truth is severe though by fairy fingers dressed—either is
equally unfortunate.

L

FACE THE LIGHT

- 673 Quite the reverse of what you imagine. Record its main *features*, watch and compare.
- 671 A tiny maiden will have a long reign in the proud dominion of a home unbroken.
- 669 There are six requisites in every happy marriage. The first is faith, and the remaining five are confidence.
- 667 A good wife opens the gates of your being to the celestial fire that irradiates all things.
- 665 When you're in love all things show it; you thought so once, but now you know it.
- 663 The friends thou hast and their adoption tried, grapple them to thy soul with hooks of steel.
- 661 Every quarrel which begins in nothing and comes to a struggle for supremacy is endless. Forget it.
- 659 News of the missing will come as cold waters to a thirsty soul—possess your soul in patience.
- 657 Put a little more enthusiasm into the measure of your expectations.
- 655 It is better to venture and lose than never to venture at all; be a good loser.
- 653 If your pursuit is pleasure, you will never catch up—put more enthusiasm into your work.
- 651 A habit of indecision weakens intuitive judgment; trust your instincts and act.
- 649 Let that which you learn in the house of your friend, be as though it were not.



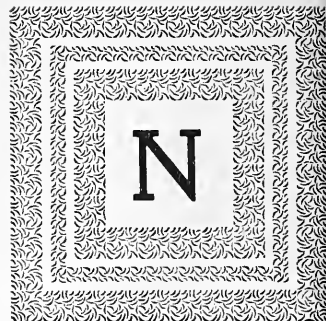
- 728 Forget little injuries as though you knew them not as such—great wisdom in forgetting.
- 726 Those who live in glass houses should not throw stones, your case is fragile.
- 724 If your cause is not just, winning it is losing more than you gain.
- 722 Your wishing alone is vain. Know your desire right first, then work for it.
- 720 Concentrate your determination. Will to succeed and success is yours—Don't be a floater.
- 718 Let it run its course. The prodigal will return and be happy—Do not relax your mental influence.
- 716 Do not allow yourself to be idle and bad habits will die of their own accord.
- 714 Just crawling out from under an overturned auto. Nobody hurt as much as scared and soiled.
- 712 He's most desperate ill, sir; I do not think these ten months will recover him.
- 710 Follow the laws of health; don't let a single one of your faculties wither for want of use.
- 708 Live in the present; forget the past; don't worry about the future; cultivate the company of the young.
- 706 Feelings are often a foresight of results. Trust them—Remember and compare.
- 704 Avoid confusion of influence by fixing your mind on the particular question you desire to ask.



M

FACE THE LIGHT

- 701 Take that alternative in which you can be enthusiastic.
Enthusiasm wins most of life's battles.
- 699 That it's possible to know by the study of sleep, the fine
demarcations between freedom and fate.
- 697 The mother will teach this boy self-control, and thereby
make him a great man.
- 695 Love they say is blind and destiny deaf, wherefore dis-
parity of ages seems to be a question of *feelings*.
- 693 Take the one that sits beside thee! Take the goods the
gods provide thee.
- 691 Down on your knees and thank God for the great love
that is given thee.
- 689 While it costs that one nothing, that one will be true
to your interests; and not much longer.
- 687 If reasons are as plenty as blackberries, give no man a
reason on compulsion.
- 685 The missing and the mystery goes up in smoke, warm your
hands ere the embers die.
- 683 Relax not in your efforts to earn it; a little needed help
will come in good time.
- 681 Why—no—you will not be lucky, but it will help general
circulation a little.
- 679 "Blessed is the man who has found his work," and sticks
to it joyously, early and late.
- 677 You have less control over your judgments than you
imagine; cultivate spontaneity.

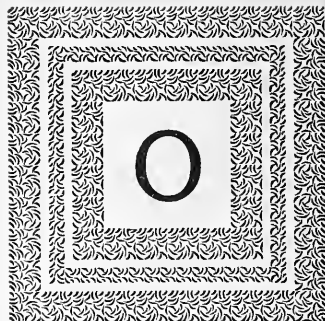


- 27 Do something—Your action will solve the doubt theory cannot solve, so the Fra says.
- 25 Let pride and joy in doing your work well, be your religion; deeds speak louder than words.
- 23 Even the Bible says it is better to be defrauded than go to law.
- 21 Think more of vindication than of revenge and you will win; more preparation is necessary.
- 19 If *you* think the sweet spirits ELLU would approve, your wish is sure of attainment.
- 17 Ponder well and long whether success in this would be well for you; trust luck less.
- 15 Ask yourself if you are in any way at fault. If not cease all worry; time will right the wrong.
- 13 Get congenial work and work till you are tired out. The joy of earned rest kills bad habits.
- 11 Happy as a lark, working in the new position your influence led him to.
- 9 What'er betides by destiny 'tis done; and better bear like men than vainly seek to shun.
- 7 Be industrious but do not work beyond your strength, neither rust out, nor wear out.
- 5 Don't lie abed. Get up and make yourself useful, and forget yourself and ills in making others happy.
- 3 Most surely you can improve the art; get acquainted with ELLU and you will know.

N

FACE THE LIGHT

- 1 Powerful vibrations are coming your way peculiarly auspicious to you—Trust the answer.
- 727 Never try to do that which at best you could only do badly—like a dog walking on his hind legs.
- 725 You are to learn something good—While your senses slept your ELLU was shaping destiny.
- 723 Let the mother beware of that old wickedness of repressing a child's individuality, strong in this little maiden.
- 721 Money and social position are desirable but reciprocal forbearings will make this marriage happy.
- 719 Yes—for it's forlorn looking into happiness only through other people's eyes, besides "Barkis is willin'."
- 717 The kind that would be mated by the lion must be ready to die for love; don't be out-classed.
- 715 Among the very first to desert you in failure and stress is the too protesting friend.
- 713 Feed well and ancient grudge and small habits well pursued betimes may reach the dignity of crimes.
- 711 Yes, when the bubble from the fountain reaches the river and the foam from the river reaches the sea.
- 709 Always enthusiasm from the flames and generousities of the heart, accomplishes the heart's desires.
- 707 As a good thing is made better by passing it along, so it is with the nimble sixpence.
- 705 When you find that work which when well done fills your heart with spontaneous song—stick.



- 28 Unless you are certain of better results, stick to what you have, but consult personal aptitude.
- 53 Lay sentiment aside and be right at all costs. Then decide quickly, heeding instinct.
- 51 Concentration and enthusiasm—the secret of all success, in politics, business or love.
- 49 Debate thy cause with thy neighbor himself, and discover not a secret to another.
- 47 You will win, but the game is not worth the candle, so you lose after all.
- 45 Far beyond your expectations your wish will be gratified—but tinged with regrets.
- 43 Do you deserve success in this of which you ask? Failure seems to threaten.
- 41 If it is from any fault of yours, to make amends immediately, go more than half way.
- 39 You will fail unless you find out what it is you can do well and do it better each time the habit threatens.
- 37 Using bad words—Pounded his thumb driving a nail—to hang your picture.
- 35 The patient will recover by unremitting care only, not by medicine or empty wishing.
- 33 A kindly interest in others will put your mind and therefore your body in a more healthful state.
- 31 Don't think about yourself, what you like and don't like, keep with the young—forget yourself but not to chew.



O

FACE THE LIGHT



29 Good fortune; yes, temperate exercise of lower instincts, *within legitimate channels*, helps the higher unfold.



54 Do not hesitate, your own mentality is ascendant; the moment is auspicious.



24 The one that rouses the strongest desire wins; all things come through desire.



22 That for a new enthusiasm in life, subdue your sempiternal waking memory of *ills*; forget them.



20 Do you think you can control your own thoughts? much less then the noise of this strapping boy.



18 When your constitution craves a mate, and you are good in forgetting, there's happiness in marriage.



16 What's sweeter than the two lids of your sweetheart's eyes? Why the four lids of course, of wife and baby.



14 This was settled ages before you were born. Nature's cunning hand fashioned her charms for you.



12 You can be certain of help when it's most needed; but it's not most needed always as you think.



10 Concessions and reconciliations! Lord how long must these everlasting squabbles of the past deter progress?



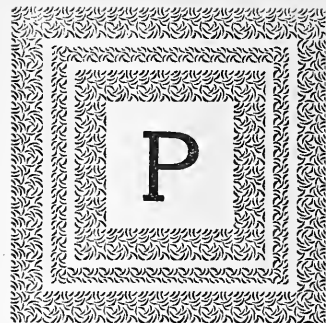
8 Have you forgotten how the poet's ancient timepiece answered this question? Forever - never. Never - forever.



6 Cheer up! Cheer up! Look at Billikens and smile; the worst is yet to come.



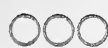
4 You lack undulance and spontaneity. Sleep more and decide this yourself *in the morning*.



- 56 If you are a hypochondriac, never try any game of chance. Fortune frowns on cultivated bile.
- 81 Congenial work which gives joy in the product is better than little work and big pay.
- 79 Be fearlessly just now, but not hard fisted in this decision—yield something to decency.
- 77 Don't think it alone but *do* unto others as you would that they should do to you.
- 75 Prepare all your papers beforehand. When you are sure of winning, throw them all in the fire.
- 73 You will not win—You are not prepared—Win your case before you go into court, by preparation.
- 71 The longing is vain. Change it in respect to its end and it will be otherwise.
- 69 You must do more than command success—you must deserve it. Then come it surely will.
- 67 Want of congenial work is often a cause of waywardness—change the environment.
- 65 Asking this question shows that you need an introduction to yourself. Study your instincts. Find ELLU.
- 63 Ask him to explain how he came to be in another man's melon patch, a very funny tale.
- 61 A merry heart maketh a glad patient, but by a sorrowful countenance the spirit is broken.
- 59 If you strongly desire improved health, you will have it—"where there's a will, there's a way."

P

FACE THE LIGHT



57 Remember this, old age cannot creep on the human mind;
every moment in nature is new. Ergo use your mind.



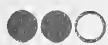
55 Your instinctive feelings are not there for nothing. Re-
cord them to compare with subsequent events.



80 Resist the influences of doubt; "to the persevering mortal
the blessed immortals are swift."



50 Ask your better half—ELLU "will solve the doubt your
reason cannot fathom."



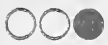
✓ 48 Smash ahead on instinct; "a man never rises so high
as when he knows not whither he is going."



46 Be prepared for a surprise and give the mother unremitt-
ing care and nursing.



44 Truth is the basis of confidence; mutual confidence is the
only sure basis for a happy marriage.



42 Love sought is good, but given unsought is better; but
if you don't know the difference—marry anyway.



40 If it's a woman, she's therefore to be won; if a man,
why then it's a matter of management.



38 Look in my face, and say if there is aught I have not
dared, I would not dare for thee.



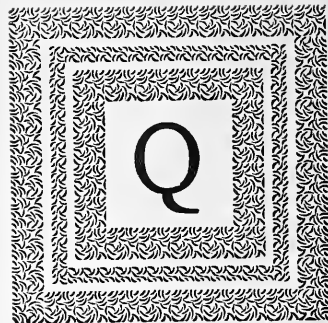
36 "What! wouldst thou have a mule kick thee twice?"
Thus the crystals reluctantly repeat.



34 Have courage, you will find the lost and solve the mys-
tery—in sleep. Forget not the whispered charm.



32 Cheer up—man is born unto trouble as the sparks fly
upward, trouble's a great developer.



- 84 Your difficulties are your greatest blessings, if you overcome them, so then persist.
- 82 The goddess of fortune favors the merry heart—but don't force it, cultivate spontaneity.
- 107 That employment into which you can put your whole heart is better than riches.
- 105 Tomorrow never comes—so in this particular case 'twere well to defer action till tomorrow.
- 103 Cultivate the art of being a good listener. It is better than talking and costs more effort at self-control.
- 101 The greater your provocation, the greater the victory by avoiding law suits, but never shirk duty.
- 99 Your honor will be sustained with substantial results, be just and fear not.
- 97 Your desire is a powerful magnet that draws all things to itself—switch on the current with care.
- 95 Do not so strenuously seek what you do not need, and would toss aside if gained.
- 93 Yes—You will receive a letter soon, announcing reform and a great desire to return.
- 91 The consciousness of a vicious habit is half the victory. Follow conscience—a bully guide.
- 89 Sneezing, the result of a cold from imprudent exposure—when 'tother dear charmer was away.
- 87 The night will not be long coming when he will sleep, and never wake again on earth.

Q

FACE THE LIGHT



85 The less you think about your ill health, the better for your health; get a new set of false teeth.



83 You will be about the same kind of a man tomorrow that you are today; make the best of today.



108 Contrary to common belief, man has more instincts than animals, not less. They are guides to right action.



106 Wait till the clock strikes or some musical sound vibrates in your ear; harmony's the thing.



76 The crystals will solve this doubt in their answer to another question—select it thoughtfully.



74 That your memory needs improving by remembering your dreams, and comparing events.



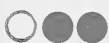
72 Of the three hearts now beating in sweetest unison, two of them are *boys*.



70 He that is slow to wrath is of great understanding—especially in wedlock.



68 Ask HER—Be as valiant as the flea that dares eat his breakfast on the lips of a lion.



66 You know nothing of the deepest glory of life until you realize the fact of the love you have won.



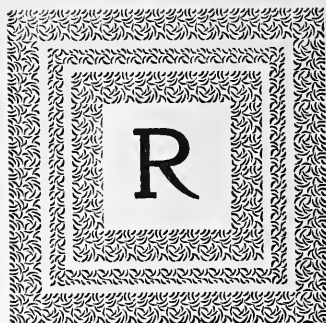
64 He that never kept a friend need blame only himself—change your habits or this one too, will quit.



62 For her the spouse prepares the bridal ring, for her white virgins hymeneals sing.



60 Yea—though the breath of disappointment should chill the heart, speedily gloweth it again, warmed by hope.



- 112 Write down all the circumstances connected with the loss. Search with this to help you.
- 110 I have been young and now am old, yet have I not seen the righteous forsaken.
- 135 Sadness and despondency drive luck away. But trust not too much to luck.
- 133 Find your aptitude and stick to that; environment counts, keep it in the reckoning.
- 131 Defer nothing that you can settle satisfactorily *now*, but go further into the facts.
- 129 You will be great and popular only as you practice the sublime truths of simple honesty and kindness.
- 127 The law is for vice. Avoid it as you would a wild hyena with a fire brand tied to his tail.
- 125 Any victory at law is full enough of shame, in this case disgust with yourself as well.
- 123 In the degree of the sincerity of the wish and improved opportunity will fulfillment come.
- 121 Yes—if you persist and work honestly for it, success cannot evade enthusiasm.
- 119 Congenial work and time will do more than anything else to work this reform.
- 117 The moment the inclination to the habit comes, that moment find work to do, pound the air, get busy.
- 115 Sailing on rough water and very seasick, sadly careless of personal appearance.

R

FACE THE LIGHT



113 After life's fitful fever he sleeps well; be sure he sees a smiling face on waking.



111 A merry heart doeth good like a medicine, but a broken spirit drieth the bones.



109 Most great athletes die young. Cultivate a temperate use of all faculties. All vice continued grows *mental* with age.



134 Good if you are brave enough to stand by your convictions of right, against all odds.



132 The only present disturbance is want of confidence in your own competence and intelligence.



102 That which counts the most for humanity is your surest success in this dilemma.



100 An independent intelligence seeking conscious recognition with an important message for you—stupid.



98 Yes, a little danger—but good nursing will save both daughter and mother for future companionship.



96 In proportion as the woman's love arouses the divine emotions of the first day.



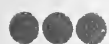
94 Marry not without means to pay the milliner, for so shouldst thou tempt providence and get a squall on Easter.



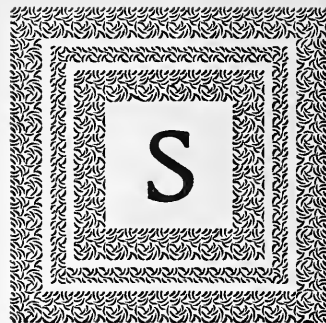
92 Yes—with such a smile as though the earth were newly made, and you two owned it all.



90 No—Confidence in an unfaithful man in time of trouble is like a broken tooth and a foot out of joint.



88 Soft eyes looked love to eyes which spake again, and all went merry as a marriage bell.



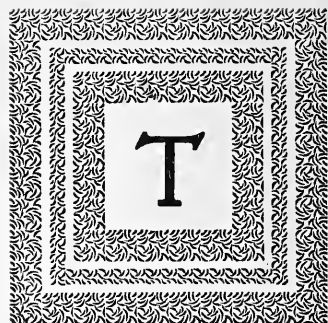
- 140 Men must be taught not as if ignorant but unknown things proposed as things forgot.
- 138 'Tis hard to reconcile such welcome and unwelcome things at once. The missing will be found, the mystery unsolved.
- 136 Go to the ant thou sluggard, consider her ways and be wise, that is *feel* around.
- 161 Faith in ELLU will help the matter. Try one night's good sleep before deciding.
- 159 If your work cannot elicit the best that's in you, try a change; find your natural bent.
- 157 Do not let a good opportunity slip away by dilatory methods—master the subject now, decide quickly.
- 155 Be more careful of what you say than of what you do, and be more kindly to all.
- 153 Go ask the man who has just lost a good case, and good sleep and good money.
- 151 Your victory is the discomfort and shame of another. Is it worth while? Consider much.
- 149 In what degree is the wish consciously unworthy? In that degree will its fulfillment be your failure.
- 147 Yes—But remember, success at the cost of any dishonest act sets the law of compensation in motion.
- 145 Reclaim the wayward one from present influences; transplanted weeds oft make fine flowers.
- 143 Look out how and what you eat. Vicious living strengthens vicious habits. Fletcherize! Chew.



S

FACE THE LIGHT

- 141 Trying very hard to be a cheerful loser in the game he is playing.
- 139 Cheerfulness in the presence of the patient—your faith will strengthen his faith and hasten his recovery.
- 137 Joy and Temperance and Repose, slam the door on the doctor's nose; hold up your diaphragm.
- 162 Yes, if you avoid the poison of hate, the toxin of anger and worry that stings to death.
- 160 The passion of love shall give more self knowledge in a night and a day, than ages of philosophy.
- 158 Banish suspicion which is altogether too common to your nature, then go ahead.
- 128 Mind is not as merchandise which decreaseth in the using. Think it all out again. You lack decision.
- 126 They would many things of strange consequence reveal, if you would remember and compare.
- 124 The time of the singing of birds is come, and the voice of destiny will be heard through a son.
- 122 In the proportion that mutual confidence and intimate comraderie are cultivated.
- 120 Marry, say Past and Future (spirits of dead ancestors—babies pleading to be born—hand in hand).
- 118 'Tis said love is never mutual; one loves, the other consents to be loved.
- 116 Yes—Yet, verily is the man a marvel whom truth can write a friend indeed.

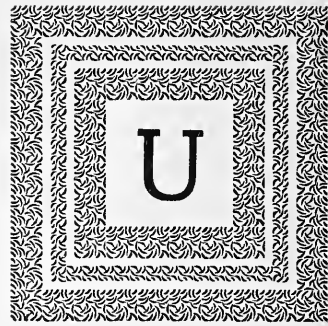


- 168 Let him feel that his pursuits have as deep an interest to you as your own, mutuality will thrive.
- 166 Give the garment of praise for the spirit of heaviness; a deed of kindness in silence.
- 164 Yes—Enjoy the relief of good news. You will find the lost and the mystery be solved.
- 189 Hope deferred maketh the heart sick. Don't expect it; work the harder with new resolutions.
- 187 Consult ELLU; (the transmitted virtues of your ancestors), if favorable, go in deep or not at all.
- 185 Stick to what you are sure of, until you can lay better hold on a sure improvement.
- 183 Deliberation is a good thing but don't wear it threadbare—decision is a better.
- 181 Be sincere and true in heart, generous, unselfish and just always in all things.
- 179 What go to law of your own free will and accord? Never! That is hardly ever.
- 177 Win! but for what? Pride of opinion and loss of manhood, and a little vile money?
- 175 Would your heart covet the desire if written out for your best friend's eye? then change it.
- 173 It will be hard to estimate the far reaching effects of the great success awaiting you.
- 171 The trouble has come from bad companions; the wayward one is all right at heart—encourage.

T

FACE THE LIGHT

- 169 Find out what gives you the most *lasting* pleasure—cultivate that with all your ability.
- 167 Having a picture taken to send to you, ELLU is in the camera's way—look for it.
- 165 This one cannot understand why some are taken, while others remain who would be glad to go.
- 163 By deep breathing in the open air, by excessive chewing of food, and determination to improve.
- 188 Care to our coffin adds a nail no doubt, and every grin so merry, draws one out.
- 186 Yes, by comparing events with premonitions and by keeping a written record of noticeable dreams.
- 184 Make a strong effort to overcome present adverse influences by holding your mind on the question.
- 154 One *self-approving* hour, whole years outweigh of stupid stares and loud applause.
- 152 Past and Future forging in sleep, the ring of destiny which no man can step out of but may bend.
- 150 As cold waters to a thirsty soul, so is good news from a far country—a boy.
- 148 By mutual deference each to the other's opinion continued beyond the honeymoon.
- 146 A little red pepper is good for the constitution; so is conjugal love in proportion.
- 144 Take heed that what charms you most is a reality and springeth not from your own imagination.

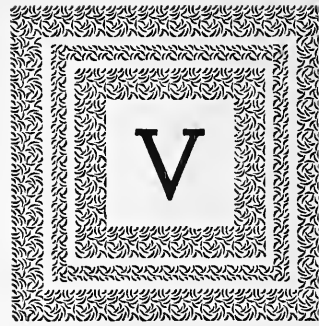


- 196 Absence strengtheneth friendship when the last recollections were kindly.
- 194 There be few who deserve to have thy confidence. This one is of them.
- 192 The highest wisdom often consists in mere passivity—patient waiting, no loss.
- 190 When the skies fall and the tides fail, the lost will come within thy pale.
- 215 Show yourself friendly if you need the help of a friend—remember the virtues of molasses vs. vinegar.
- 213 Stick to your regular business and leave gambling to others, unless you are a cheerful loser.
- 211 Beware of rainbow chasing. Consider mainly the natural bent in which you are proficient.
- 209 Cultivate a habit of decision by prompt action, and retentive memory to compare results.
- 207 Realize that you are a god in the crysalis, but don't play to the gallery of your own conceit.
- 205 Only in defence; never be the plaintiff in a case if avoidable—faultless preparation wins.
- 203 You will certainly lose at last more than you gain, so stick to your last.
- 201 'Tis the same to him who weareth a shoe as if the whole earth were covered with leather.
- 199 You are too timid; be bold and strong; work for it, conquer your own doubt or you will fail.

U

FACE THE LIGHT

- 197 The charms of old influences are being bridged by your love—Persevere!
- 195 If you have got to the point of recognizing it as bad, and do it again, make your will.
- 193 There's a musical instrument and singing and playing in company; and a deep disquiet that longs for silence.
- 191 The ticket for Elysium is first-class, but is good to the end of this trip only.
- 216 Fresh air is free, use it. There's no monopoly on ozone; you couldn't live four minutes without air.
- 214 Don't drift, but do things, remembering to be kind. A long and happy life will be yours.
- 212 Your fear is an inheritance protective in nature; don't let it cramp your higher life—study it.
- 210 The balls are alive with joy for the pure in heart. To them their extreme sensitiveness is especially responsive.
- 180 Let all impediments in your way be as added motives to that action wherein you excel.
- 178 It means that you must profit by your fate; adversity is the prosperity of the great.
- 176 How beautiful are the feet of those who bring glad tidings—yet *he* will wear nines in time.
- 174 As nothing can be hidden from love's perceptions, to be happy both must be open, true and frank.
- 172 Marry at once, be true and be glad. "He that winna when he may, shanna when he wad."

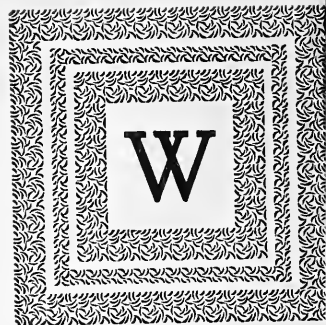


- 224 There is no profit where there is no pleasure. Let natural inclination be your guide.
- 222 The thread of your two lives are entwined in one; unseen influences weaving a beautiful pattern.
- 220 I tell you but the simple truth, you may trust this guileless youth.
- 218 Behold when the one is threatened with harm, the other uplifts a protecting arm.
- 243 Not yet; be contented to leave the search to others whose wits are less perturbed.
- 241 By strong enthusiasm, man makes estates as fast as the sun breeds clouds.
- 239 Yes, far beyond your expectations, but the main trick is to hold your gains.
- 237 A bird in the hand is worth two in the bush, but a rolling stone gathers polish.
- 235 Never put off till tomorrow, what you can do today, for tomorrow never comes.
- 233 You can be a saint *now*, without dying; be on time and keep your word, pay as you go.
- 231 If you are the defendant, fight to win; go slow if you are to start the fight.
- 229 The Fra says success is sometimes a subtle contrivance for bringing about a man's defeat.
- 227 Great will be the joy following the destined fulfillment of your wish.

V

FACE THE LIGHT

- ○ ○ 225 Your blood needs the tonic your glorious success will bring it—work with enthusiasm.
- ○ ● 223 Show your faith in the better nature of the wayward one. This will rouse self pride.
- ○ ● 221 Take care! the *will* is already weakened, else would there be no propounding this question.
- ● ● 219 Finding to his cost that all's not gold that glitters, either in the ore or in the mind's eye.
- ● ○ 217 For unto him health shall be given, if *he desires* it in his very soul.
- ○ ○ 242 Breathe deeply, drink deeply—of soft water, chew persistently and eat less.
- ○ ○ 240 The whole secret of sweet old age attained is good nature. There is absolutely no substitute for it.
- ○ ● 238 Too much science and art discourages old instincts that are sure and leaves confusion; study to be *natural*.
- ● ● 236 The sentiency of the balls is responsive to a present disturbing influence—wait awhile.
- ● ● 206 Consult your instinct—after sleep—as to natural aptitudes and inclinations.
- ● ● 204 It means you better read less quickly, think more slowly, and scatter less.
- ● ● 202 Get the basket and all the sweet trappings for a fond mother to nurse a girl.
- ● ● 200 If they are not too much in each other's company, in judicious absence the heart grows fonder.

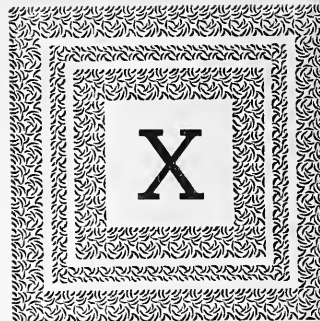


- 252 If thou wilt be loved, render implicit confidence—with these conditions, yes.
- 250 Don't marry merely the difference to see, twixt tweedle-de-dum and tweedle-de-dee.
- 248 Brace up, persevere, and don't get too sentimental; practical deeds will win.
- 246 Yes, but "How few there be among men who forget themselves for others—a jewel this.
- 244 Ye Gods! annihilate but space and time, and make two lovers happy—propinquity cures.
- 269 Attempt the end, and never stand to doubt, nothing's so hard but search will find it out.
- 267 The race is not always to the swift, nor the battle to the strong—your opportunity comes today.
- 265 No—only in what you buy to hold as investment, after investigation of facts.
- 263 Do better work where you are and you will stick to your present pursuit from choice.
- 261 Unstable as water thou shalt not excel; cultivate the habit of prompt decision.
- 259 Yes, by punctuality, for that is the soul of honor and of lasting popularity.
- 257 Do not submit to imposition, but be defendant if possible—meanwhile prepare points.
- 255 Tell the truth, the whole truth and nothing but the truth and *win*—self-respect at least.

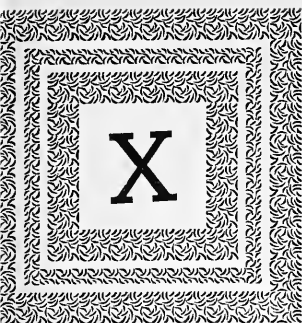
W

FACE THE LIGHT

- 253 If you do not follow the wish with generous earnest action, it will fail.
- 251 Not this time. But remember if at first you don't succeed, try, try again.
- 249 It is not at all worth while to make yourself unhappy for what you cannot mend.
- 247 Your worst habit is your lawless disregard of the rights of others and not the one you think.
- 245 Walking rapidly towards water, ask him about it and hear a strange story.
- 270 Kings may be blessed, but ELLU is glorious, o'er a' the ills o' life victorious.
- 268 Exercise daily out of doors, but don't overdo it; sleep eight hours, and get a hobby to ride.
- 266 The only really beautiful old age is the one long prepared for by persistent kindness to others.
- 264 If you want knowledge to take the place of guessing, study and follow your instincts to the end.
- 262 Drop frivolity for a time, *hold the question in mind*, for the present moment is propitious.
- 232 In which would success give you most pride and self-approval? Take that.
- 230 It means avoid excesses or like Aaron's serpent, it will swallow all.
- 228 'Tis a triple question this time—This question of sex. The mother will explain gladly.

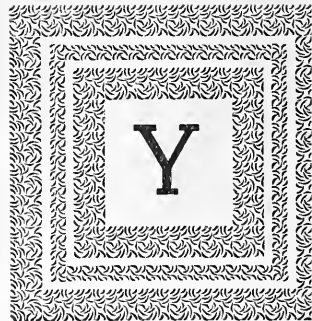


- 280 Nature determines this through diet, if the food's right
'twill be a boy—or a girl. Study the bees.
- 278 Hide not your grief nor your gladness; be open one
with the other—communicate.
- 276 Seek a good wife diligently, for she is the best gift of
God's providence.
- 274 The heart can ne'er a transport know, that never feels
a pain—but don't be too anxious.
- 272 A talebearer revealeth secrets; but he that is a faithful
spirit conceals the matter.
- 297 Hatred stirreth up strifes; but love covereth all sins.
Let not the sun go down upon your wrath.
- 295 Yes—the hint will be given in sleep, that *trail* must be
then followed or the keenest sight is as blindness.
- 293 Amend your ways and your doings, and difficulties will
disappear of themselves.
- 291 Don't talk about luck, to speak of it drives it away—stick
to your work in silence.
- 289 Don't acknowledge yourself a failure; persevere, mean-
while study aptness and inclination.
- 287 Haste makes waste; when you know the *facts* decide
quickly; look into details.
- 285 The secret of popularity is in knowing what not to say
in the wrong time or place.
- 283 Not unless the honor of another is in your keeping; fight
to the last ditch for that.



FACE THE LIGHT

- 281 Don't be too anxious to color your case—stand steadfast for the exact truth.
- 279 Make every possible effort to its attainment; don't rely on idle wishing—be generous.
- 277 Don't swell and strut for when it comes, it will be more luck than your good sense.
- 275 It will take much time and great patience—But success is worth it, persevere.
- 273 The true measure of a bad habit is its injury to others—Don't be a brute—be kind at all times.
- 271 In a condition of spiritual unrest; like a pendulum between highest truth and repose.
- 296 The hurt is beyond the skill of medicine; what difference does it make with life at best a span.
- 294 That depends entirely upon your mental attitude, as do the sortations of the balls.
- 292 Forget all tears as soon as shed; keep sunshine glowing in the breast.
- 290 Ill in that degree to which despondency mounts, banish it with a Billiken's smile.
- 288 The balls are as sensitive to doubts as the red and white of your blood are to toxin.
- 258 Indecision is your great fault. Think of something else, then decide quickly on the side that's first in mind.
- 256 Take no pains to waylay and entrap that which of itself will fall into your hands.



- 308 Write the vision, and make it plain upon the tablets, that he may *run* away that readeth it.
- 306 Mystery, mystery, amazing mystery; the sex is not yet determined. Ask again later.
- 304 Yes, if there's reciprocal trust and confidence and where-withal for grocer and baker and the rest.
- 302 On the neck of the young man, sparkles no gem so gra-cious as *enterprise*.
- 300 'Tis sweet to know there is an eye will mark our coming and look brighter when we come. You are *it*.
- 298 Be very discreet in this particular case but show expecta-tion of perfect loyalty.
- 323 *Seek* no reconciliation unless you are in the wrong; ex-plain nothing; keep sweet.
- 321 No they are like ships that sailed for sunny isles, but never came to shore.
- 319 Your difficulties are fair compensation; you must pay the price of former extravagance.
- 317 Trust your instincts. They see further than your reason. First thoughts after a good sleep are always right.
- 315 If you are doing well, do not give up, unless uncongenial-ity is undermining digestion.
- 313 Do not be over anxious or excited; decide the matter on its merits alone—but quickly.
- 311 Work hard for the institution of which you are a part, not against it.



FACE THE LIGHT

- 309 Agree with thine adversary quickly, while thou hast the opportunity, especially if thy case is weak.
- 307 Tell the truth, let it hit where it will. That is the way to win a glorious victory.
- 305 Your appetency will be gratified beyond your needs—Beware of excess.
- 303 Your plans are not well enough considered; take more time to perfect them; sleep on it.
- 301 Take this to heart; there is a limit in which forbearance ceaseth to be a virtue.
- 299 Never fail to keep this question uppermost where the habit besets:—How does it affect others?
- 324 Seeking an illusive joy at the citadel of life which only confers joy unsought.
- 322 He that increaseth knowledge increaseth sorrow; yet so 'tis true that joy cometh with the morrow.
- 320 Learn that the emotions control the secretions. Act accordingly and improve.
- 318 Sweet old age is bought by a *habit* of sweetness; adopt the habit without a moment's delay.
- 316 That nature never will betray the heart that loves her—get closer to nature.
- 314 Better had they ne'er been born who read to doubt or read to scorn.
- 284 Money is not the only good; decide for the greater honor. Do something worth while.



Z

- 336 Forget it in a brisk walk or work in open air. Then act on the first recurring impulse.
- 334 That you are being lifted above the common place of life to higher intuition.
- 332 There are three hearts now beating where beat only two before—'Tis twins and all's well.
- 330 If you would double all the pleasures of life and halve all its ills, impart love and marry.
- 328 Be wise today; 'Tis madness to defer. Life is short. Don't wait for the chloroform days to come.
- 326 Saw ye not the new moon yestereen, wi the auld moon in her arms?
- 351 True only so far as his own interests are not made to suffer thereby.
- 349 Beware of entrance to a quarrel! but being in bear't that th' opposed may beware of thee.
- 347 That which is lost will surely come to light by turning from the wrong place back *to the right*.
- 345 Yes, by display of implicit *confidence* in your own ability to repay with good interest.
- 343 Trust your own common sense, minus sentiment; don't be urged into it for good nature's sake.
- 341 Don't exchange a sure thing for an uncertainty, however alluring it may seem.
- 339 Overcaution is worse than rashness for rashness acts—ofttimes on sure instinct.

Z

FACE THE LIGHT



337 When you find yourself unpopular, ask yourself what you have *said*, not what you have done.



335 It is better to suffer loss and injury than to go to law and suffer more.



333 If you have unbounded wealth and unscrupulousness, you win at law.



331 It were better to keep your desires less vastly out of proportion to your needs.



329 That undertaking is doomed to failure which is so far ahead of the times as to be visionary.



327 Don't embitter the present hour with the rags and relics of lost opportunities.



325 And the devil did grin for his darling sin is pride that apes humility.



350 Improving present conditions by taking a bath too long deferred.



348 Seest thou a man wise in his own conceit? There is more hope of a fool than of him.



346 And he that will his health deny, let him down among the dead men lie.



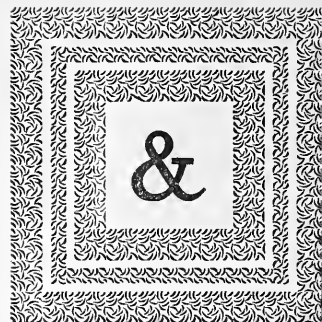
344 In the warm and noble heart of this wise old man survives the child and lover.



342 'Twas a portent of great moment. See that you note both the time and place.



340 The time is propitious the moment you decide on a deed of true charity.



This combination signifies AND, which in English speech, is the symbol of *something more*. And while, as the Century Dictionary says, it is a "colorless particle without an exact synonym in English," still it may be said to suggest an indefinite *plus*—signifying "with, along with, together with, also, moreover," etc. So whenever the three reds shine out from the aperture, it calls for *something more*, and means that you must begin again.

It means that you have probably slighted the necessary preliminary requirements. Therefore you are to read the directions again with strict ATTENTION to every particular, and to roll a new combination. It means also that special heed is to be given to the forthcoming answer, which the three reds indicate will be one of unusual importance and significance to you. *Make a note of it on the Record pages following.*





FACE THE LIGHT

●●● *Form, Color and Motion in nature are the visible symbols of all human knowledge. Let neither form, color nor motion distract your mind from the question.*

Form, Color and Motion in nature are questions of vibrations; so are presentiments and dreams. Thereby is perpetually illustrated the illusoriness of human sense impressions.

Like Form, Color and Motion in nature, child and savage alike are spontaneously eloquent: For nature gives the swiftest symbols of utterance to unconscious perceptions.

IF there be spirits then the whole secret of intercommunication is solved in symbolism: But Nature is deaf and dumb to everything but desire.

Form, Color and Motion furnish the simplest elements for a spirit code of symbols: The genius of dreams uses them to image an idea to consciousness.

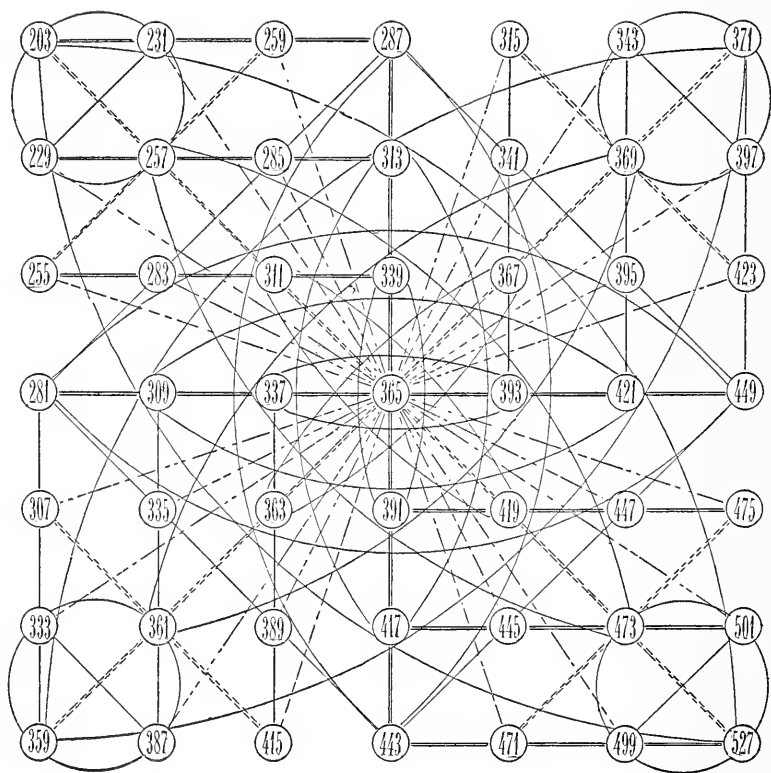
With "no other name for that which we do not understand we call it CHANCE." Another says "we give the name of DESTINY to all that limits us."

Psychocraft



PART II.

The Mystery of Mental Groupings.






SMALL section of the wonderful "Square of the Alphabet,"—(the numerical key to the "Tablets of Destiny") is given on the opposite page, used to illustrate "paths" of memory and attention in the field of a "motor setting centre" of the brain:

It gives also a most beautiful illustration of the subtle affinities of NUMBERS, and their interrelations to the inherent principles of pure FORM in all processes of thought. To get some idea of Dr. Carus' "void of anyness," in ABSTRACTION, wipe all these lines and figures off the page by an act of will, leaving it blank; empty the mind, as it were, of all sense impressions and prejudices, and then let other numbers or things and other forms and affinities come into that void, *of their own accord*, to get in touch with *intuitional* insight.

The Auto-psyhic Alphabet

Affords a "Crucial Test" for "Spirits."

HE invention of the first alphabet in a remote antiquity and the consequent growth of "letters" proved of course an incalculable power in advancing civilization, by facilitating more exact communications of information between distantly separated intelligences. But this was undoubtedly at the cost of some of the nobler lineaments of the first practical ideology. So also a consequent decadence of the ideographic art. Practice of the characteristic human faculty of symbolizing ideas, carried with it sharpened perceptions for subtle meanings. Such people would be good interpreters of intuitions and dreams.

The present tidal wave of human determination to get into communication with still higher intelligences, or at least, to tap the great outside "mother reservoir" of knowledge, may give the old art a new impulse.

Heretofore the two great difficulties that have been in the way of "spirit" communications, are the troublesome, if not fatal element of the *personal equation*, and the absence of any suitable practical working alphabet.

It is possible that in very ancient times, an alphabetic numerical value scheme was used to tap this outside "reservoir" of

spirit intelligence. Remarkable remnants of a knowledge which have come down to us in the unearthed legends of the "Tablets of Destiny" of Babylonia, and in the Biblical account of the Urim and Thummim.

But in modern times no "spiritual" alphabet scheme seems to have been known, at least so far as I can learn, until something over sixty years ago, when one of the little Fox sisters in the village of Hydeville, N. Y., snapped her fingers at the "spirits" saying, "Here, do as I do," when raps faithfully imitated her snaps. Finally, when her thumb and finger touched silently, the audible raps responded correctly, so it was clear the mysterious force could see as well as hear. Then she called, "Oh, mama, only look" and as often as she repeated the silent contact of thumb and fingers, so often followed the raps. Out of that grew the crude spelling of words by a system of raps. Evidently the force, *whatever it was*, that produced the raps was responsively intelligent.

It is of no consequence whatever that "confessions" in after years, indicate that those first raps were produced by the mischievous trickery and devices of the children themselves, (as published in the *New York World*, August 21, 1888); the system of spelling words by raps was born. It has remained active ever since (December, 1848), all over the world wherever "circles" form. At least, so I am told; I never attended one. I have no personal knowledge; nor does that matter. An overwhelming mass of scientific data has since established "raps" as *authentic psychic phenomena*.

The inherent crudeness and absurd impracticability, not to say puerile stupidity of this method, is at once apparent in the fact that some one must tiresomely call the alphabet, beginning each time with A, and repeat over and over again until every letter of each word of a communication is reached and tedious-

ly rapped out. But that is the least of the difficulty. The actual presence of a participating medium, or psychic, is required in order to induce the raps. This mediumistic intervention is also necessary to automatic writing. That is the worst feature of the whole business, because whatever the method of communication may be, the intervention of a third person, through whose participation the communication is developed and received, only augments the already ineradicable elements of the personal equation.

Also in all known instrumental tests, such as the once famous planchette, and the ouija-board, the string and index pointer alphabet, in short, in any and in all mechanical contrivances for similar use, the same troublesome element, the same presence of a personal influence, or unconscious willing, is inherent.

Such tests could scarcely ever be deemed "crucial" in any sense. Not only must mediumship ever involve this doubtful element, but in addition thereto be an ever wide open door to the most pretentious and bare faced charlatanry.

To be scientifically operative, the fundamental basis of a successful alphabet should be distinctly two fold: a physical and a psychical or spiritual basis. Necessarily, both must be strictly and logically in harmony with each other, and with the known physical and physiological facts and laws. The physical basis of the rap alphabet is *sound*—wholly invisible. But, like a voice it furnishes means of communication in the dark as well as in the light, which fact is its only redeeming feature. But the irremediable opportunities for fraud which it offers, and the presence of the fatal personal equation, even in the hands of honest mediums, vitiates it beyond practical redemption.

Form, Color and Motion are the physical elements that furnish the basis for the new alphabet. The letters are formed

automatically by distinct groupings of tangible, visible, colored units.

Now it happens, by virtue of one of the laws of *Numbers* (which really belongs to the spiritual side of nature, as expressing the "essence of things," as we shall see), it happens that the total possible combinations of three colors, where at least there are three units of each color, taken in sortations of any chance three units at a time, are $3 \times 3 \times 3$, which is 27. Fortunately, for our purpose, it *happens* (happens is the word, since this time it is without known law, except that which Destiny has furnished), that the number of characters in the English alphabet, including the sign &, is also 27. However, it would not have rendered the principle inoperative had there been more or less than 27 characters, since by changing the number of units or number of colors in the combination, any number of characters can be expressed. Hence applicable to any language. I say fortunately, only because in the case of English, a beautifully balanced numerical symmetry was preserved; in which the most striking potentialities of *forms* lie hidden, as will appear. These units are assembled in any convenient receptacle. The aggregate number of units is immaterial, so that there are at least, (for English), three of each color. When I say immaterial, I mean only as to *mechanical* operativeness. There is, however, a subtle refinement of the principle present in the Law of Probabilities which governs the frequency with which any particular color combination might chance to occur under that law. So that, as matter of fact, I use *more* than three of two of the three colors; and this for the same reason that in a font of type, the letter e, for instance, is more numerous than z. Even if spirits have a higher intelligence and a finer language than our own, it is to be assumed that in the use of English, they will be logical *if given a fair chance*.

Practical mechanical operativeness, of course, requires a stall, or niche, or as we say, slot, into which only three units at a time may fall, as chance or the communicating spirit, may dictate. If the receptacle is covered from sight at each agitation of the crystals, the sortation in the slot is made perfectly and absolutely *automatic*; an essential which, so far as I know, was never before accomplished in the forming of a letter.

Thus does Form, Color and Motion combine to constitute the physical basis of the Autopsychic Alphabet, for the purpose of mind or spirit communication with mind or spirit, without pen, ink, paper, type, slate, pencil, voice or sound even, and *absolutely free* from the disturbing element of the personal equation.

Is it too much to claim that this is the only practical alphabet in the world ever devised to use a single invariable unit, as to size and form?

The telegraphic code comes the next nearest, having only two such units, the dash and the dot. But the Autopsychic involves Color and Motion as the *visible* elements of an animated automatic operation.

But all these are considerations pertaining to the physical basis only of the method. The spiritual or psychical basis of the alphabet's operation is not so easy of explanation. Especially that *direct* application of it, by pronounced psychics or "mediums" who are strong enough in psychic force to induce direct "exteriorization of motivity;" that is, those who are able to cause levitations or movements of objects without contact: Who may thus cause direct movements of the crystals into combinations and thus obtain direct communications through psychic force, whatever that may be of itself or whatever unknown intelligence it may represent.

But there is another phase of this direct use of the alphabet: most people are not, or at least think they are not, "psychic" enough to cause any movement whatever without contact. This is not necessary, and it is perfectly easy for anyone to accomplish direct use another way. Agitate the receptacle and let the crystals make their own haphazard combinations, noting each letter consecutively thus formed to spell out a possible communication. This would still be *direct*. And I promise you, there will follow for many people, not only surprises, but some astonishing results. I have had the method in private use for years.

Still it must be admitted, there are people who have only the slightest trace of psychic responsiveness in their make up. Yet even for such there is a possibility of psychical communication, without the intervention of any mediumistic third party. For this purpose a classified list of questions and answers is provided, (the square of 27 admits of 729), which covers a very wide range of diversified human interests. By this arrangement, even a child can obtain a perfect result. Furthermore, it is a result which involves a possible psychic influence or intervention, that is to say, in which Destiny plays a part in deciding what the answer shall be. For, no matter how simple the solution of the physical fact, that a haphazard sortation of the crystals into anyone of their possible color combinations will indicate with infallible certainty, which particular *one out of fifty-two pages of answers*, shall thereby be selected, as an appropriate answer to the question, there will always remain an element of insoluble mystery. What part did Destiny play? Did some unknown intelligence of a higher order, foreseeing the right answer, control the combination to secure it through psychic force? Who shall say? Yet all that furnishes no sort of reason why that as yet unanswered query should lead off into the hobgoblin bypaths of mystic occultism.

The existence of mediumistic phenomena as scientific fact, that is, as a working hypothesis admitted to the realm of positive science, is overwhelmingly confirmed in many ways; and is most admirably and conclusively shown by the regular *Annals* and private reports of scientists through nearly thirty years of research in Europe and America. A good illustration of private report is that by Professor Camille Flammarion, the world famous astronomer, in his "Mysterious Psychic Forces," a volume of four hundred and fifty odd pages. Now certain inferences from these phenomena are not only scientifically legitimate, but inevitable. For example, three certain points are established to the universal satisfaction of metapsychical students, as follows: An unknown something or other, spirit, entity, force—it matters not what, moves objects without contact; exerts a responsive intelligence; and foresees and foretells future events.

So, to make a specific application, if that is true which the greatest scientists in the world say is true, then it is easily and legitimately conceivable, that this invisible something or other, possessing such astounding powers (and to escape for the moment the old fogs and confusions that inevitably cluster about the ideas of soul, subliminal, etc., let us for the sake of the argument, accept the personification of ELLU)—is conceivable that this personification of such astounding powers could not only instantly perceive which particular answer out of the fifty-two pages belonged to any specific question and combination of the crystals, but could actually perceive which answer would most nearly conform to the particular happening, out of all those held in reserve by Destiny, as the inexorable eventuation, and so influence the combinations accordingly.

To declare this possibility is not the same as suggesting a power to change a law, which would mean that the capricious

and "fantastic will of a child could prevail over the law of things and pull down the sun." It is simply saying that the unknown intelligence which foresees the destined eventuation, could cause the hand that holds the crystals to tremble, or spasmodically start, and thus evoke anew the eternal and immutable laws of gravitation, centripetal and centrifugal forces that might combine to cause a red or a blue or a white, as the case might be, to take precedence in rolling into the little "chamber of fate" where the combinations form, and thus *predict* the destined eventuation.

We, all know, what, for want of a better term, we call Instinct, is wise beyond all manner of description. Even science has at last begun to perceive that either some unknown and unnamed phase of the unknown force of the living human being—no matter what name we give it—perceives and directs the invisible forces of nature *in moments of supreme necessity*, to shape, change or influence future events, thus playing the part of a provident Destiny; or on the other hand protecting and friendly *spirits* are facts of our existence here on earth. However that alternative may be determined by future research, look for the *fact* yourself of the presence of *some* amazingly great and kindly power, and you shall find it playing its beneficent part a thousand times a day in the experience of everyday life,

At all events this much may be fairly claimed as reasonable:

If this Autopsychic Alphabet in the hands of a genuine psychic, or anyone in fact for that matter, used independently of the auxiliary numerical chart and its classified tables of questions and answers, shall give intelligent responses, I submit that it will be such a "crucial test" as has not heretofore been presented to sincere, honest, authentic ghosts. Because it is the very zenith and nadir of improbability that the recurrence of


those easy flowing combinations of accidents, should happen, by the "long arm of coincidence," to spell out a single word as an appropriate answer to a direct question, much more that it should thus frame a succession of words into a connected and intelligent sentence *unless so guided by an absolutely independent intelligence.*

For equally good reasons failure to get a communication would not tend to disprove the existence of spirits. While on the contrary, if it did work it would be an extra good clincher for the spiritists. But if in the theory of its operation one finds the idea of ELLU too bold, or a too fantastic flight of imagination, he shall find himself at least in noble company in the venture of the thought, for what else can Emerson mean when he says, "One solution of the mysteries of human condition, one solution to the old knots of Fate, *one key exists*, namely—the propounding of the double consciousness."

There is yet unmentioned one more eminently practical use for the principles of the new alphabet. Namely, for cultivating the powers of *Abstraction*. Mental individualization of the actual units present, for purely mental combinations for the mind's eye, admits of practically limitless extension. For instance, by mentally adding a new color; or similarly changing the capacity of the slot.

Abstraction.

The Mystery of Mental Groupings.

ORSE worked out the alphabet of the telegraph code in the swift vision of a single night. The thought came to him to *break at will* the continuous current of electricity, and let the spark resulting therefrom, transformed to dash and dot—(only two simple units of form), stand for letters, and in that night the universe of social and business life was transformed as well.

It was not in a dream—he was not sleeping—but it *was* in that state of partial abstraction, when the conscious mental sight is clearest, which so often comes in the prostrate position of rest. So it was in exactly similar night visions, that a *single* unit, as to form—little frictionless spheres, intermingling freely and flowing into chance *color groupings*, was seen to be a perfect basis for an autopsychic alphabet. But it is not now the alphabet with which we have to do, rather is it the mental state called abstraction, which favored its invention—a *state which it is assumed may easily and safely be cultivated*.

The idea of mental groupings assisted by color distinctions then, names the method to be suggested for cultivating the latent powers of abstraction.

"If some one," says C. H. Judd, Ph. D., Professor of Psychology in Yale University, "would make it his special study to find out how children can be assisted in cultivating the power of abstraction, he would perform a great service for the science and practise of education."

The science of that accomplishment may not be as abstruse and complex as appears at first thought. The author above quoted remarks that science itself is merely the inventorying of facts and the organization of them into systems of classification, and by the help of one class, or *group*, another is checked up and verified.

If the societies of Psychical Science have accomplished anything whatever, it is the establishing of the fact that there is a superior intelligence of some sort, that somehow mixes in the affairs of life; most commonly through symbolisms actively presented to the mind during certain states of abstraction. The grand question is, can the power of sensitiveness to receive and retain for consciousness, and the power to interpret correctly, when they are retained in consciousness, these symbolisms of Intuition—*can these powers be strengthened or enlarged by cultivation?* Can they be cultivated at all, in any practical common sense way? There is nothing unscientific in the surmise and there is scarcely a doubt of an affirmative answer for both phases of the question. There are three basic facts to the proposition.

I. An Independent Intelligence, superior to reason and intellect, no matter what name you give it, EXISTS and is active in human earth life relations—as the most probable *source of intuitions*.

II. Its natural process of operation upon the human mind is by symbolisms, either in a condition of natural sleep, or in states of abstraction resembling natural sleep.

III. The probable *essence* of the symbolism is number relations, which in some unknown way become "feelings," mentally visualized or transcribed into impressions, from the illimitable groupings of Form, Color, Motion,—which are the three basic elements in nature out of which all human *experience* is fashioned.

So the method is based upon the twofold assumption that number relations, in *unconscious* mental groupings, is the element or essence of the natural symbolisms of thought, and that the latent human faculty of *instinctive right perceptions*, (as in flashes of genius), can be cultivated. And though the hidden or reflex operations of the effects of a practise of conscious, or of willing mental groupings of units, is mysterious in the extreme and subtle beyond expression, yet it is not beyond reasonable conception of a practical application. It is in no sense magic. It is rather a question of the right application of subtle mechanisms. For instance, Tesla invents a system of "*non interferable*" wireless telegraphy, which may seem like magic to us common people. But when we understand that it was only possible because it is practical to use certain invisible numbers of specific vibrations in *certain combinations*, even in a man made mechanism, the magic element fades.

Why should it be any more difficult to conceive that as a matter of physiological fact the brain mechanisms can transmute its sense impressions of sound into mental perceptions of Color and Form, since all these are merely in their physical essence questions of numerical ratios of vibration combinations? Some men actually claim to be able to visualize music in mental forms and colors. That does not make the matter magical.

Surely, it is not more unreasonable to conceive that the Genius of Instinct, with his vastly higher order of wisdom than human reason, which through untold ages of refinements and selections, has fashioned these brain—sense—thought mechanisms, can use them in ways past our comprehension, than that Tesla can use his crude contrivances in ways we cannot and that even he, does not fully understand.

The direct faculty of the human through which the power of intuitive perception may flow is more likely to be that faculty which has always been more or less vaguely kin to the Instinct, than any other. Because that is the most ancient and venerable of all the animal faculties. It is probably true that that inexplicable faculty in every living metabolic organism at least proceeds from one and the same original source—the super-organic energy. Dr. Haffkine has beautifully shown how the protozoa in zoophyte life, lower than the sponges, will instinctively *shun disease*. Darwin proved the amazing intelligence and inventive genius of the Orchid in seeking fertilization. Just how that faculty functions, we may never know. It is, however, assumed by most people who think at all, that as a matter of course there must be some great Force of some sort, possessed of an Independent Intelligence, that envelopes and *pervades* everything, in land or sea or sky, from the wayside stone to the intellect of man; bathing all things as in a boundless Ocean of Intelligence, even as the ocean of the atmosphere bathes the whole earth; or better, as the limitless ocean of ether bathes, flows through and pervades atmosphere, earth, rock, sky, stars and all that in them is.

It will be noticed that I speak of the Genius of Instinct, as if it were *one*. I am well aware that it is the fashion among physiologists and psychologists, when discussing mental phenomena, to speak of instincts (in the plural) and somewhat con-

temptuously, as pawns in the game of life. They speak of the instinct for food, the social instinct, the sex instinct, etc., etc., as so many animal propensities and nothing more. Nevertheless, I shall have the temerity to persist that facts will justify the reasonableness of the *individuation* of this faculty, however numerous its branches may be. Moreover, are we not driven to it since a great exponent of science will no longer tolerate the idea of a subliminal mind?

"The story of the subconscious mind," says Professor Munsterburg," can be told in three words; there is none."

What is more certain than that the faculty which is commonly called instinct, sees somehow, in ways unknown to conscious reason, and understands the promptings of that other intelligence which knows all things? Any way it is a matter of fact which has been commented upon for ages, that the faculty of human conscious understanding seems to be keenest, indeed is sometimes most amazingly sharpened, in those states known as abstraction.

If it is possible to cultivate a power to assume such a state at will without mental strain, then it would seem assured that the power of actually commanding the intuitive perceptions, which are almost always right, whether we understand the rationale of it or not, is a reasonable expectation.

At all events, thinkers on the problems of education in general have already acknowledged the immense importance of strengthening the power of abstraction. That is to say the power of assuming a state of mind where by an act of will all distracting sense impressions of hearing, sight, etc., are ignored, practically shut out from brain illumination as if they did not exist. The following opinion of a high authority was quoted at the beginning of this chapter, but it will bear repetition.

"If some one," says Professor Judd, "would make it his special study to find out how children can be assisted in cultivating the power of abstraction, he would perform a great service for the science and practise of education." This same author says in effect in another place, that there is no way so effectually to cultivate the power of abstraction as to *think out combinations of grouping relations* where the grouping is not actually made, but only in the mind. Of course there is bound to come the time of mental struggle when the power of pure abstraction is to be assumed without the aid of any object whatsoever.

I will cite a few authentic historic examples to illustrate the consummate ease with which the human brain mechanisms can be used to picture to consciousness, the most astounding mental results. And all we know about it is that these subtle mechanisms are played upon by some kind of an Independent Intelligence. They will also illustrate the bad effects of wrong methods of cultivation of the powers of abstraction. That these examples would be called abnormal does not change the principles we are discussing; for, as will be shown by other examples coming under my own personal notice, the principles apply equally well to perfectly normal intellects.

According to the cyclopedias, Zerah Colburn was born at Cabot in the state of Vermont, in 1804. Before he was six years old, he began repeating the products of high numbers. His powers were so astonishing that his father took him on a tour of exhibition throughout the United States, and in 1812, at eight years of age, they visited England for a similar purpose. He astonished the learned as well as the public. At one of the public exhibitions in London, this immature child was asked by the Duke of Gloucester, to give him at once, mentally, that is, without paper or pencil, the product of 21,734 multiplied by 543, when he instantly replied 11,801,562. But when asked

to explain, if he could, the successive mental steps which he had taken, this little child replied readily, "*Why, I did not use the figures you gave me at all, I just multiplied 65,202 by 181.*"

Now at the risk of being tedious, I want for one moment to direct attention to the very noticeable fact that it will cost even old mathematical heads, skilled by long practise, a decidedly serious effort to perceive the curious fact that 65,202 multiplied by 181 is the same in result as the Duke's problem. That is, that as 4,395 is equal to 293 multiplied by 15, and that consequently $(4,395)^2$ would equal $(293)^2$ multiplied by $(15)^2$; and that as 543 is equal to 181 multiplied by 3, so the Duke's problem, 21,734 multiplied by 543, would necessarily be the same as $(21,734 \times 3) \times 181$; namely 11,801,562. What do these facts indicate, if not that the child had the power to almost instantly visualize mentally, all the FACTORS of the concrete numbers given, in their inherently logical *group relations* with their inevitable results? Such a method might in reality have little or nothing to do with our ordinary and cumbrous process of multiplication, although the grouping process above described appears to involve shorter mental multiplication as part of the process. Even then it seems past believing as possible to a child of such tender years, but history relates that *correct* answers to all problems propounded were delayed scarcely a perceptible moment, though the figures often ran into millions.

Nothing is surer in history than the *existence* of such mathematical prodigies. And nothing is surer in mathematics than that there are grouping ratios and relations of numbers that defy all efforts at classification under any known "rules." The symbolisms exist in fact as inherent in numbers, whether reason can grasp their meanings or not. Furthermore, it is a fact beyond dispute that such mathematical prodigies, with scarcely any conscious mental effort on their part *do* read off correct answers

as if perceived through the infallible eye of ——— well, what shall we say? Suppose for the sake of the story, we call it ELLU.

Let us trace a few more facts in this remarkable case. The heavy browed propounders asked the child for his *method* of calculation. You have seen what he replied. He did not use the figures they gave him at all. Did the child give them the first that occurred out of a possible dozen different routes, or mathematical formula paths, whose symbolisms all have the same *value* result? Did his ELLU in *fact* perceive the direct result before he himself took notice of the presence of the factor groupings at all? Say, as one perceives a concrete word as a whole, in a sentence, without noticing at all, letter by letter how it is spelled, until *asked* to spell it? And as to the ultimate *meaning* of the word symbols grouped in the sentence, one word in it, important to its meaning, may have a number of synonyms, either one of which may be substituted in the sentence and not change the actual meaning of the sentence itself.

That he did, as matter of fact, instinctively perceive the grouping relations of any number however high, which we call *factors*, is proved by the following taken from cyclopedia reports.

He was asked to name the factors of the number 171,395, and with readiness, he named the *fourteen factors* of that number. Again when he was asked to name the factors which would produce the number 247,483, "he immediately replied 941 and 263." And it was found, upon applying the known laborious rules for determining such problems, that those two numbers were indeed the only factors of that number. How is it possible to explain such authentic facts, except by the assumption that there is an independent intelligence that perceives instinctively that number groupings is the natural shorthand expression—symbols of the inherent logic of their relations?

Here again is an example of a different order: He was asked to give the square root of 106,929 and "before the number could be written down he replied, 327. With equal readiness, he gave the cube root of numbers running into millions. Another significant example was that of his power in grouping Time units. He was asked how many minutes there are in 48 years, and again before the question could be written down, he replied, 25,228,800, adding, "*without delay*, the number of seconds, is one billion, five hundred and thirteen million, seven hundred and twenty-eight thousand." (1,513,728,000.)

As a final example involving still different "rules" and processes requiring extended time in any known method of actual calculation, he was asked to raise the number 8 to its sixteenth power, when without pencil or paper, but wholly by his powers of mentally visualizing his intuitions, he replied, the chronicle relates, in his childishly immature voice "*eight hundred and eighty-one trillions, four hundred and seventy-four billions, nine hundred and seventy-six millions, seven hundred and ten thousand, six hundred and fifty-six.*" (881,474,976,710,656.)

There is deep significance in the following which deserves close attention. Two other extreme classes of examples, historically authentic, illustrate the indubitable necessity for the assumption, that either some direct power of human superorganic energy, or some intangible spiritual affinity with the "Great Unconscious," outside Ocean of Intelligence, or whatever we may call it, actually perceives without any previous reasoning process, the *existence* of groupings of number relations, in the invisible vibrations inherent in the subtle forces and phenomena of nature. Not only that, but that the actuating force, whatever it may be seeks, *insinctively* as we say, *to co-ordinate these relations to consciousness.*

This is not a mere juggling with words. The significance of

the facts is irresistible. The first of these classes of examples are furnished by such geniuses as Sir Isaac Newton and Alexander Graham Bell; the second by such other geniuses as the half idiot Jedediah Buxton. In either case, sage or idiot, *proofs* would never have been reached after, had not bold scientific imagination or prescient intuition *first perceived the existence of facts* warranting experiment. Sir Isaac Newton says in "Optics" under Proposition III. "The breadths of the seven primary colours produced by the refraction of the sun's rays through a prism are proportionate to the seven differences of the lengths of the eight musical strings." And Professor Alexander Graham Bell's researches and experiments go to show that a direct physical relationship exists between the molecular energy of sound, and the energy of luminiferous etheric vibrations. He invented and used a wonderfully delicate and ingenious instrument, which manipulated a beam of sunlight in such a way that the rays were made to beat rhythmically upon different substances, and obtained sounds. Chips of wood gave forth perfectly audible musical tones.

"Van der Weyde in his lectures demonstrated," says Flora Hayter in "Colour Music," "That the vibrations of the first, third and fifth notes of the diatonic scale bear the same relation to one another as the colours red, yellow and blue." Dr. Fotherby of London, (in a series of most admirable articles printed in the "Annals of P. S.," London, to whom I am indebted for the last quotations) questioned whether Van der Weyde had "demonstrated" the proposition as stated, in a scientific sense. Dr. Fotherby's caution is doubtless well founded. And yet, while perhaps a *direct* relationship and connection between music, color and emotion has not yet been scientifically *demonstrated*, the Dr. himself says (p. 274, Vol. VII, "Annals Psychical Science"): "In any case, if there is no direct

relationship between visual colour and musical sound, I maintain that they may be still linked indirectly by emotion."

So some say the relationship is direct. Some say not so. The late Edmond Gurney in his great work, the "Power of Sound," concludes that the relationship is not *direct*; yet says (on p. 38) "We may state broadly that for sound the region of *Form* is the region of *Colour* and that while the eye is encountering form and colour at every moment of its waking activity, the ear practically identifies them with that unique order of experience called Music, in which alone they are combined."

An example of the other class, that of pure intuition, where the power of sustained reasoning was entirely absent is furnished by the very remarkable case of Jedediah Buxton, a mathematical phenomenon of England. One of the significant peculiarities of this man's mind was that he could leave off his "instinctive" calculations, however complex and intricate their character, *for months at a time*, and resume the work again exactly where he dropped it, although he was almost an idiot in other respects, and while he performed the most prodigious mental calculations, such as measuring the lordship of Elmton in Derbyshire, something like a thousand acres, which he did with astonishing accuracy by simply walking over it, and gave the result, without paper or pencil or chalk, not only in acres, but in roods, perches and feet. And then by way of a little gratuitous fun, the sordid matter of business being satisfactorily completed, his idiotship informed his lordship with a grin of unalloyed delight, that his whole estate, (allowing 2,304 to the square inch, the orthodox number according to the Jews) contained such and such a number of square *hair's breadths*! "Which," as the chronicler goes on to state, "was such an incomprehensible number as to be altogether astonishing." All that is merely incidental to the main point of this example which is to illustrate the fact of an instinc-

tive *perception of the existence of invisible vibration ratios*, without any previous education whatever on that point, or in fact on any point, being an idiot, poor, illiterate and obscure in the extreme.

For purposes of psychological observations, he was taken to Drury Lane Theatre to see Garrick in Richard III. He had never been to a theatre before; had never before seen such a blaze of magnificence, yet neither that nor the passions of consummate acting, aroused the faintest shade of emotion, interest or excitement. To all appearances he remained through it all perfectly apathetic and dull. But when questioned by those who were watching him, it was discovered that he knew exactly how many words Garrick, and every other actor had used, and precisely how many steps each dancer had taken. "But," said he, "*when the band played, the innumerable number of the different sounds perplexed me beyond measure.*" The fact is too significant to be passed without notice: *He must have intuitively visualized the vibrations from the various instruments, else he never could have made the attempt to count them.*

It is comparatively reasonable to conceive it possible, that the inexplicable delicacy and tenuity of the tangible mechanisms of ear and eye, may and do transmute the sensation terms of sound into the sensation terms of Form, Color and Motion, so that the eye may hear as it were, but is it not asking a good deal of human credulity, (which indeed, is gullible in the extreme) to believe that a matter of a brain cell mechanism with all its million fold interweaving fibre connections is *all* that is necessary to account for the undeniable presence of intuitional perceptions? In other words that destruction of the tangible mechanism would also destroy the *nature of an intuition itself*. Whoever may believe that will have no use for ELLU. For others, the personification has come to stay.

All these cases are not related to produce an aimless wonderment over preternatural or pathological phenomena, but to emphasize certain facts of the deepest practical significance. Note the following verbatim quotation from the authentic records of the cases first referred to. "There can be no doubt but that marvelous child, (Zerah Colburn), like Jedediah Buxton, possessed an intuitive knowledge of some important properties of numbers which died with him. With the belief, that if his mind received a *proper degree of cultivation*, he would be able to divulge the mode by which he operated and to point out some new principle of calculation, a number of gentlemen took Zerah under their patronage for the purpose of superintending his education, but it was perceived that, contrary to the most sanguine expectations, as he progressed in his studies, he was losing almost in an inverse ratio those wonderful powers of intuitive calculation which made his fame." (The italics are mine.)

And this is not a unique or singular fact applicable to this particular case only; for history further relates that on the 6th of April, 1815, another remarkable boy, George Bidder, was introduced to the Court of St. James by the Bishop of Salisbury, before which he exhibited his surprising talents. "Of these talents," says his biographer, "we cannot speak in terms sufficiently strong to express our wonder and admiration. It would be vain to attempt to account for them upon any of the known principles by which our usual calculations are performed; but we can testify to the rapidity and precision of his answers in an innumerable number of questions of considerable intricacy."

And again about the year 1830, the Paris Press was full of a series of experiments of similar wonderful character before the Royal Academy of Sciences, performed by a young Corsican boy of about eight years of age, Giacomo Mangiamelli. "He was found to possess *as if by in-*

tuition, the singular faculty of solving a great variety of very difficult arithmetical questions, by the mere operation of the mind without the usual assistance of any visible symbol or contrivance. The Royal Academy did for him what had been done in England for the young Zerah Colburn. . . . But here *again the result proved to be the same as in the case of the young Zerah*. . . . Although they placed him in one of the most renowned colleges, where the greatest care was taken of the improvement of the mind, yet as the little wonder grew in years and knowledge, *it was found that his mental calculating powers diminished every day.*" The hidden significance of these facts, hidden at least from the educators of those days, is twofold. It lies, first, in the mistake of assuming that these exhibitions of astonishing powers of visualization pertained to mental mathematics and nothing else, merely because the power happened to take those channels or paths in brain mechanism manifestations; and the consequent fatal mistake of assuming that "a proper degree of cultivation," consisted in the application of a rigid regimen of arithmetical rules and axioms. "Rules" can apply only to such classified relations of numbers as human intellect has already mastered. But here was a manifestation confessedly utterly beyond their comprehension. And (2) the mere *existence* of these most astounding powers of *intuitional* insight, almost instantaneous, in the human, whether normal or abnormal, proves there is nothing preternatural or occult about intuitional prescience, though its methods of communication to consciousness may always remain beyond the grasp of sensual reason.

The inevitable inference from these facts is that known rules and axioms cannot cultivate such a power, but would rather tend to dwarf and stunt it. One has but to turn to the daily records of modern life and its practise of school cramming of such rules

and axioms upon tender minds, to read therein the secret of prevalent juvenile suicides in Germany where mental child life is forced the hardest. To bind and shackle the prodigious powers of intuitive perception by arbitrary rules or brain mechanisms based upon only *partial* and imperfectly perceived interrelations is illogical in the extreme. I say *partial* because it is well known that in the case of number perceptions there *are* ratios and relations that defy all efforts at classification, and are therefore utterly beyond the province of any known rules. Rules are merely to express succinctly the knowledge *thus far* accumulated through many generations of toilsome and laborious efforts in the past and, of course, are absolutely indispensable in ordinary or extraordinary mathematical work. The extraordinary exhibition of mathematical powers just recounted, are cited merely as examples of the astounding *extremes* to which the direct powers of *intuitive perception* are not only *able* to go—but *do* go. Indispensable as labor savers, as rules are, for all mathematical work, they are worse than useless in any effort to cultivate the powers of abstraction. Because that is the state by means of which one is able to enter a realm wherein *all* the basic principles and essence of things appear distinct and clear; of which present rules are as yet only partial and therefore more or less equivocal expressions. Not that rules are unreliable—they may be reliable enough *as far as they go*. But only a part of the possible ratios and relations of numbers, have as yet been classified, and, as already stated, some of those ratio and relation groupings defy all efforts at classification *may that not be because they symbolize something else than mathematics?*

Now for the practical application of the principles involved in the foregoing extreme and abnormal cases of intuitive perceptions, where it is quite impossible to trace any precedent circumstance which may have given the warp or tendency to an

acute development of unusual activities of latent powers, I will cite two cases of quite unpremeditated development of these latent powers but well within normal limits, which happily came under my close personal observation for a number of consecutive years.

Curiously, these cases also developed mathematical perceptiveness of a high order, but along with it also a high degree of general intellectuality. Perhaps this curious persistence of mathematical manifestations is due to the fact that number relations are always consistently and absolutely logical. A quality or property so inherent that by no possibility can they be side tracked from the main line—which is consistency—and in which sense they may represent the essence of things. But if we take an instance where some problem in arithmetic or algebra, which is not only abstruse and complex in its number relations, but also involves in its propounding verbal ambiguities incident to the imperfections of language, which therefore add misleading and distracting elements, and give such a problem to the class, in the great majority of cases the thread of inherent logic that is there just the same, connecting the basic facts of the problem, is entirely lost and cannot be followed, being carried *mentally* into outside entanglements which are *not* consistent with the basic facts started with.

There are always such problems, purposely prepared. Experience shows that comparatively few in a class ever solve them without assistance. Indeed, it seems safe to say that a mind without some predeveloped powers of abstraction, never solves such a problem alone. The following is the true incident above referred to, never before in print, which will serve to illustrate the points in discussion. They involve a known previous experience, many times repeated, of unconscious combinations of the groupings of a number of

similar units. That is to say, it was done without conscious mental effort; the effect or bent, therefore, if any being in a sense reflex, as from cheerful play.

Two children, of their own accord, collected a large number of small homeopathic pill bottles of slightly varying sizes, but of many more units than sizes, which they stuffed full of bits of ribbons or cloth of various colors and shades. These were their imaginary "people" grouped into classes. The people were duly named, distinguished as individuals, and recognized as such, partly by size and partly by the varying shades of color. Their "play" always involved a continual changing of groupings, symbolizing different moods and conditions of the imaginary people.

If there were nothing more than the mere fact that both these children in later years at school, easily attained the higher markings, both in mathematics and chemistry, it were a fact worth especial notice. But the results in detail, of the grouping practise, are vastly more significant. For instance, in brief, when it came to the very hardest of the problems in arithmetic, one or two of which are usually "stickers" for a whole class, unless some hint or assistance is given, being purposely framed to present the most puzzlingly complex number relations, both these children, each working alone unknown to the other and unassisted by anyone, quickly arrived at true answers and both, *by the same method of reasoning, which was not the way prescribed in the book at all; and when their process was called in question by the teacher, it was demonstrated that the children's method was more direct and inherently logical than the one laid down in the book*, and so admitted by the teacher in mathematics.

So it would seem that imaginary groupings of colored units (certainly involving unconscious states of mental abstraction), had, in the case of these two children at least, cultivated the power of assuming states of abstraction *at will*, in which logic

or a rigid consistency with the conditions started out with, was not obscured or side tracked by incidental relations, however complex.


It is doubtless true that a high degree of the power to assume self induced states of abstraction at will, constitutes what we call genius. But what is genius but the ability to catch and hold, and translate correctly the intuitions and perceptions of the higher part of self, whatever that may be, or whatever the source of the intuition? It is the secret of *attention* and concentration.

It does not necessarily follow that successful training of the powers of intuitive perception of obscure results, must begin in childhood, for "It is an error to hold," says one of the world's most eminent authorities. (Wundt, in *Outlines of Psychology*, p. 330.) "As is sometimes held, that the mental life of adults can never be fully understood except through the analysis of the child's mind. *The exact opposite is the true position to take.*"

Cultivating the Power of Abstraction

by

Mental Visualization.

E start with the idea that practical cultivation of the power of abstraction is brought about by pleasantly exercising the natural and universal gift of mental visualization in general. By pleasantly exercising I mean without mental strain. But as the mere general statement may not be taken for what it is truly worth, I first try to establish clearly the fact that mental visualization is a natural and universal gift. It was doubtless once very much more active than it is in this age. It is a fine gift which a too coarse materialism has crippled.

When the blind man says, "let me see," there is no conscious thought in his mind of the empty darkness of his physical eyeball. So inbred in the blood and marrow of the human race, is this fixed habit of visualization, that even the physically blind will spontaneously invoke the mental light that shall cast images for the mind's eye.

Perhaps the least obvious application of the principle is in the intercommunication of ideas from one mind mechanism to

another. This, it is thought, has usually been accomplished from the remotest times, by language, either spoken or written; and the common impression is that spoken language antedates by untold ages, all written signs or ideographic symbols. Nevertheless it is probable for all that, that neither the ear nor the tongue alone were the original autocrats of a practical language.

It is, even to this day, a most significant fact that while one traversing the wilds of the American continent would have to know hundreds of different Indian dialects to make himself understood orally and audibly, could, with one simple set of *visible* symbols make and receive intelligible communications with any and every individual of any tribe he might encounter, from Cape Horn to Point Barrow. This is historical fact.

The well known Indian sign language appeals, not through vibrations of sound from vocal organs at all, but to the eye alone. As for instance, an old scout told me in the wilds of Idaho that a finger first touching the lips and then struck outward with an undulating or crooked motion, universally signifies and is instantly understood as symbolizing visually, "crooked tongue," or, liberally interpreted, "you are not telling the truth."

A further and more subtle illustration of the practical application of the natural faculty to visualize ideas whenever possible, is furnished by the very abstruse postulate of science that matter is a mode of motion. Most people, it seems to me, find it very difficult to form any distinct idea whatever as to how it can be that all the innumerable forms and compounds of matter of opposite characteristics, in earth and sky and sea, from stone to air, from cast iron to radium, from jelly fish protoplasm to the exquisitely specialized substance mechanisms in a human brain, how it can be that all these are in actuality nothing more than different modes of motion of varying groups of atoms

of a supposititious ultimate single substance, whose atoms as to Form at least, are all exactly alike.

It was very difficult for me to conceive, without some picturesque aid, how such an impalpable point of energy as comprises Lord Kelvin's atom (the atom itself composed of a vortex ring motion,) could by any possibility become as dense and solid, *to the sense* of sight and touch as, say, a chunk of iron. The way I visualized this for my own mind's eye was as follows: I remembered that when a boy I used to make a ring of fire by swinging rapidly a stick round and round in the air, the end of which was a live coal. To the sense of sight, that was an unmistakable solid continuous ring of fire. By varying the motion there would be an elongated loop or oval or again a figure 8.

Now let us by force of imagination and poetic license make the live coal of fire to be not a portion of the stick of wood, but the particular atom group that constitutes iron, magnified to a visible point and raised by heat to distinct redness. Now by the same license, imagine that that visible point has *two* motions whose relative velocities are what decides the substance as iron; say the motions are vibratory and circular; that is, one back and forth, and the other around a circle; and by the same magic of fancy we may magnify the visible *range* of the motions to the length of the stick of wood, say three feet.

It must be remembered that the assumption of science is that the motions of the atom possess an enormous velocity, transcending anything we know or experience, veritable whirlwinds of irresistible force, though in mass apparently more dead still than a "sleeping top."

To be rather more explicit, the little visible coal at the end of the stick of wood that makes the ring of fire when swung in the air, is now supposed to be a group of iron atoms made visible and darting up and down, or *lengthwise* of the stick what-

ever its position, and with enormous velocity at the same time that the stick is more slowly whirled in a circle whose radius is the length of the stick.

What then would be the sensible result of the complex motions of that visible red point of iron atoms?

A solid, motionless disc of something red, to a certainty. Now test it by the sense of touch any where within its circular area; the sudden sting of heat further corroborated by the sense of smell from scorched skin, would seem to verify the visual impression beyond further doubt, that it was a disc of red hot iron.

But this serves also to illustrate the further fact, repeatedly noted elsewhere in this volume, namely, the extreme liability of all purely *sense* impressions to be illusory.

One of the evidences found in natural science of the superiority of visual impressions, is the universally accepted fact of the possession of a power of *direct, instinctive visual perception, by the very young of the lower order of animals*, as to real size, real distance and real nature of objects seen, where tactual experience had never taught, or even existed.

It seems perfectly conceivable that man, so immeasurably superior, possesses, at least in his "untold latencies," a similar power more highly refined, by means of which we may be able to correctly interpret the symbolisms of our intuitions.

I have already said, but it will bear repeating many times, that there is an indubitable existence of a cultivatable power in mankind, to discern and follow the lead of an instinct. In another place is presented briefly a perfectly practical, safe, easy and effective method of cultivating the power of mental abstraction, which is the state that favors its visualizations to the mind's eye.

And if it be objected—as it was by such eminently prac-

tical men as inventor Edison and railroad manager Harriman, through the *Yale News*, in effect that cultivation of the *ideal* tends to make men impractical and visionary, we can only say they are sadly mistaken. Commenting on this very circumstance one of the great metropolitan papers—which by the way shows most vividly what an unparalleled educator a well edited newspaper may be—nay is—I quote the following:

“Mr. Edison and many like him see in reverse the course of human progress. Invention does not smooth the way for the ideal. Ideas do clear the road for practical men and make them possible. No inventor could have done for France and for Europe what Voltaire did. The great material development of Italy and Germany followed and did not precede the intellectual revival of German and Italian genius and its devotion to political freedom. Our own Republic was not established for material reasons, but for an ideal of liberty. Name the greatest men of all time and you will have in the list no engineer or inventor, as such, but those who have by tongue or pen appealed to men’s souls, or who in the field or forum have led great popular movements.

There is always too much danger of neglecting thought for things, ideas for machinery. No theory of education that aggravates this danger is consistent with national well-being.”

FOLLOWING are some simple exercises intended to effect a beginning in the cultivation of the powers of abstraction, based upon the possible color groupings of the crystals in the little apparatus connected with the book. I have devised a somewhat different apparatus for a wider application of the principles, whereby the automatic groupings of colored crystals become a

fascinating play, but with the ulterior object kept in view, after the kindergarten order of purpose.

Begin by trying to visualize in your mind's eye, how it is that three colors, taken in groups of three, will permit of exactly twenty-seven possible sortations or combinations, and no more, no matter how numerous the units (*of form*) may be, provided only that there are three of each color. Remember what has already been said of the necessity of ignoring all *rules* learned by rote whereby such problems are usually solved. This exercise must be accomplished without any reference whatever to the rules of permutations, combinations or variations of numbers, and without any physical objects, such as the crystals in the box, actually in sight. You are only to see them with your minds' eye—in imagination. This is not at all difficult; it involves no mental *strain*.

For instance, close the book. Recall to mind that only three of the crystals at a time, can enter the little illuminating space cut in the side of the box; that therefore there can be only one combination where the three units composing it are alike in color—that is all red, all blue, all white. Thus easily and logically have we already begun, instinctively as it were, the analysis by classifying the combinations into their natural groupings. So the first class is formed. Its total possible limit numbers three.

The next apparently most natural groups or class of combinations, would be those where two of the same color and one of another are assembled in the illuminating space; such as two reds and one white, etc., etc. This is not quite so easy to visualize mentally, because here position of the unit plays its part. Still it is not difficult. *Ignore all rules but keep basic facts in mind.*

All told, there are only twenty-seven possible combinations in the box. Three of them are already accounted for. But the second class cannot therefore number twenty-four, because a third class is still to come; that is the class where only one of each of the three colors enters a combination, such for instance as one red, one blue, one white, variously disposed as to relative positions.

But that method is hardly fair, because the most natural process would be to seek directly, how many combinations are possible with two of each color and one of another, where the new element of position has entered the problem. And this should be done irrespective of indirect reasonings by inferences.

So we begin by asking mentally how many combinations are possible with *two* blues in the slot. Here the new element of position is the basic fact. They must be together (touching), either on the right hand end of the aperture or on the left with one of the other two colors accompanying them; or be separated, that is, with one of each of the two colors in the center position between them. Hence there are two natural groups or classes of the combinations with two blues involved. It is very plain therefore, that in the group where the two blues touch, four combinations are possible and no more; one red on the left, two blues on the right, and one white on the left two blues on the right, count two: then change the position of the two blues to the left and we have two more, four in all. No more changes are possible in that group. But with the two blues *separated* as to position, they can by no possibility occupy any other position than outside, ends, of the combination; and as there are only two other colors to take position between them, of course there can be but two combinations of that order or class. So we say there are six combinations possible containing two blues, and no possibility of any more.

But we have three colors, so we can do precisely the same things with two reds in the combinations; and again with two whites in the combinations; that is, six of each of the three colors, eighteen in all of those groupings of the second class.

There now remains a third class of groupings, namely, where only one of each of the three colors are involved in the combinations. And here again we must not jump at any general conclusion from indirect inference, that as we have now accounted for twenty-one of the possible twenty-seven combinations, there must be six of the remaining class, and let it go at that. Instead of that, we must look for some new basic fact; which in this case is this: There are three different *individual* colors. Heretofore, we have been concerned with one and two such *individuals* in the combinations. Now we have three individuals and there are three positions possible to each individual namely, right, left and center. But it would be fatal to jump to the conclusion that the combinations are *nine*, simply because in this class no individual color can combine with itself which would throw it into the class of two of a kind.

Each individual color then can occupy either one of the three positions only twice, simply because there are only two other colors for it to combine with. So it is easy to see how it is that this third class numbers six, without jumping at conclusions from inference or using arithmetical rules.

This matter of mentally visualizing the crystals into individual color groupings, can be extended to any length as will presently be shown, but I want to point in passing, that the application of the principles is illimitable, and that even the twelve units in the box are susceptible of combinations that to visualize mentally would bewilder the greatest of geniuses. For instance let one attempt to idealize the twelve units in the box into dis-

tinct *individuals*, by giving each a different tint of color, and then combine them in the full limit of twelve at a time, when the possible combinations would mount into the hundreds of millions (478,995,600).

But to keep within easy and parctical limits, it may be said that when one can actually visualize mentally, even the foregoing twenty-seven combinations, without once referring to the alphabetic order of them herein used, he will have materially strengthened his natural powers of abstraction—in other words of logical thinking. Assume that is done and we are now ready to extend the application of the principles.

I would suggest as a next subtle step, that we toss into the box an additional three green crystals. Not in actuality only in imagination. This does not add too great a complexity for the possible combinations are now only eighty-one. Now it is for the student to analyze as before and see *why* it is eighty-one. This mastered, add three more; this time yellow ones. We are still within practical limits, two hundred and forty-three being the possible combinations now to be made.

Then as the next step, to vary the exercise, let us in imagination only, cut the slot just enough longer to let in *four* at a time. Take out the yellows say, but add enough of each of the other four colors so that there shall be at least four units of each color in the box. Still we have not pushed beyond practical limits, as the total combinations now possible are only two hundred and fifty-six.

Of course it is not expected that any beginner can complete this analysis mentally without any material object help whatever. I would therefore suggest that the colors be symbolized by pencil and paper thus. O=White; X=Blue; I=Red; —=Green. He can thus check up the classified *groups* of com-

binations as fast as he completes them, following the general principal of procedure laid down for three colors.


Ostensibly, so far, the purpose and effect of all these exercises is to bring into play, and thus strengthen, that intellectual faculty which consciously uses *brain* mechanism directly in all efforts at continued reasonings, which it is known operates best, most clearly and quickly, in states of mental abstraction. But it is further assumed herein—rightly or wrongly—that there is a much finer, more subtle and deeper perhaps reflex effect flowing from those exercises; that in some as yet unknown way a state of abstraction *provides the means* for an actual connection with perceptions which cannot impress directly through reasoning at all; which are manifested as feelings of premonition or presentiment.

They may originate, so far as anybody *knows*, in the spleen or the *parathyroids*, (a physiological word so recent you will not find it in the Century Dictionary). Indeed, it is surmised herein that intuitional knowledge is not necessarily imparted through the *direct* use of any of our visible body mechanisms at all, but through some supersensible but none the less actual existence that inexpressibly transcends them in powers of perception and survival.

If this is construed as spiritual inclination in the present writer—why, make the most of it. It is logical; for I am discussing instinct. I have promised to avoid theological bias. Spiritual inclination may be only another word for Instinct, and intuitional perceptions. It is a fact scientifically observed and investigated, over and over again and never refuted, that intuitive perceptions *reach into the future*. And it is to that more subtle phase of the matter in hand that I now turn. He who thinks it a digression is himself side tracked.

That which happens in a state of abstraction is a more or less concentrated *attention* to a direct symbolization of an event or a truth. "Association" of ideas, where for instance the sound of a voice instantly presents the vision of a face well remembered, was a beautiful and efficient theory for the brain mechanism basis of *memory*. But when by *attention* to a particular, everything else that would be called up in general in memory by association, does not appear equally clear but fades away and only the one point *attended* to comes out clear, strong, and distinct—how about that?

Memory and Attention in the Field of the Motor-Setting-Centre.

O repeat a favorite variation of the old philosopher's dictum, which says that the relations of numbers is the essence of all things, arouses no definite thought in the mind of the average reader, beyond the fact that he is face to face with a piece of vague pagan mysticism, so indifferently repeated as to mean nothing in particular. "The Laws of Number," says Dr. Paul Carus, "is the key that unlocks the secrets of the universe."

With that happy epigram the idea grows clearer. To make it clearer yet is the purpose of this chapter. A series of definite diagrams helped me to trace out the relations of the thought. These I will proceed to reproduce here in the hope that what helped me, may help others in moulding clear ideas concerning Memory and Attention. There is a subtle logic in visible shapes that are consistent and symmetrical, even in the interplay of their hidden relations.

It will be useful to first outline some of the very latest definitions as to what the science of mathematics itself consists

of. Then the rare and exceedingly beautiful illustrations of some of the hidden but exquisite harmonies in the relations of numbers, *peculiarly grouped*, will be better appreciated as a possible illumination of some of the most abstruse theories of those brain mechanism operations, which produce the phenomena of Memory and Attention. I mean, when carried further by more competent hands. I can only suggest the general direction of this faint ray of light on an abstruse subject.

There used to be a sharp distinction drawn between mathematics and logic. Mathematics applied only to measuring, weighing, counting. It was quantitative only. While on the other hand, "Logic, broadly speaking," says Professor Russell, "is distinguished by the fact that its propositions can be put into a form in which they apply to anything whatever."

This broad distinction no longer exists. The science of mathematics is a product of mental abstraction. That is to say, it is the tangible accomplishment, the *specific result*, of pure thought *using the general axioms of primitive logic*. Conversely the nature of pure thought, whatever else it may be, is always consistent with its initial basic fact. I have already quoted two of the most illustrious of living mathematicians to the effect that Logic and Mathematics, when reduced to symbolisms, that is, taken entirely away from all entangling alliances with *words*, are essentially identical.

"All pure mathematics," says Professor Russell, in work already quoted—"arithmetic, analysis and geometry—is built up by combinations of the primitive ideas of logic, and its propositions are deduced from general axioms of logic, such as the syllogism and the other rules of inference. And this is no longer a dream or an aspiration. On the contrary, over the greater and more difficult part of the domain of mathematics, it has been already accomplished; in the few remaining cases, there is no

special difficulty, and it is now being rapidly achieved. Philosophers have disputed for ages whether such deduction was possible; mathematicians have sat down and made the deduction. For the philosophers there is now nothing left but graceful acknowledgement."

That all this is *practical* is proved by the fact that an "Algebra of Logic" is already in use: Schröder and Peano are its distinguished inventors.

Perhaps the most popular delusion in the world today is this, that if the human mind knows anything whatever *for sure*, that thing is mathematics. That whatever may happen in the domain of religion and philosophical deductions, we at least *know* "where we are at" in the one exact science—mathematics. O do we? Let me quote once more from one of the very latest utterances of one of its most distinguished masters—Professor Russell, reviewed in the January, 1910, *Monist*,—"Mathematics may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true."

That startling paradox seems to be based upon a subtle distinction of meaning applied to the word *anything* as distinguished from *something*. Something being equivalent to a particularity of one or more things. But in the domain of modern pure mathematics, the word *anything* must not have a possible trace of any specific particularity about it. From that is coined the new word "anyness."

This new word would apply to Logic or Mathematics—to quantitative or qualitative as required, alike. It is thus that the nature of modern Logic and of pure Mathematics, are traced to a common source; and that common source is deep in *symbolism*, in its widest sense.

It is a matter of everyday experience that sense impressions and sensations, can become perceptions only after they have

first come to stand for something. Then ever after that, the sense impression itself symbolizes the thing that first produced the impression. The very nature of thought itself is symbolic.

It is easy to pass to the next step, that conversely, the essence of his symbolic thinking must be mathematical in its nature. For if the postulate of physiological science is true, that the process of thinking is carried on through the property of irritability, (response to an irritant impulse), conferred upon the brain cell and fibre mechanisms, *which number thousands of millions of correlative parts*, it is hard to escape the conclusion that all human knowledge which must depend upon the operation of those mechanisms, must be at last, simply the inherent logic, or harmonious consistence, connecting the groupings of the innumerable correlated parts brought into play.

In other words, the new branch of modern pure mathematics, the "Logic of Relations," is itself founded in the *fact* of symmetrical number groupings of the countless multitude of cells and fibres existing in the human brain and centres.

"On the one hand," says H. Poincare, of Paris, (in *Monist*, January, 1910), mathematical science must reflect upon itself, and that is useful since reflecting on itself is reflecting on the human mind which has created it, all the more because it is the very one of its creations for which it has borrowed least from without. . . . The more these speculations diverge from ordinary conceptions, and consequently from nature and applications, the better they show us what the human mind can create when it frees itself more and more from the tyranny of the external world, so the better they let us know it in itself." . . .

What is this but another way of saying what I have elsewhere in this volume repeatedly claimed? What is it for the mind to be more and more freed from the tyranny of the sense

perceptions of the external world, but for it to come closer and closer in touch with intuition? The only trouble with Poincaré's philosophy is, that the *mind* is able to do this *of itself*. A power which it never has except through the Independent Intelligence of that superorganic energy which is able to use the mind's own brain mechanisms for the mind's benefit, in its rare moments of abstraction.

In the meantime, while it is evident that the future progress of the "exact science" is toward symbolism pure and simple, it is seen that the mathematicians must depend upon, at least, a few well chosen words in effecting the transition. As an example of a symbolic use of a comparatively new word carrying with it the property of "anyness," (applicable to quantity and quality alike as the case may require), the scientific use of the word *energy* is quoted. The double symbolic character of this word is getting in its subtle work. So it will be remembered that I suggested in a former chapter, that an unconscious influence was wrought in the mind by the mere fact of its entertaining *grouping relations*, even in a "make believe" play.

The author last quoted confirms this idea concerning symbolic words in the most significant manner: "Among words that have had the most fortunate influence, I would select 'group' and 'invariant.' They have made us see the essence of many mathematical reasonings; they have shown us in how many cases the old mathematicians considered groups without knowing it, and how, believing themselves far from one another, they suddenly found themselves near without knowing why."

To recapitulate the main points thus far outlined in so imperfect a way, I repeat;—the nature of common sense thinking—logic, and mathematics are identical. Their common method of manifestation is in symbolism. From the very nature of things, the basis of symbolism itself, as we apprehend it, manifests

in the material mechanisms through which thought manifests. And the nature of the operations of these marvelously intricate mechanisms must be in turn mathematical; because according to the theories of the psychophysicologists, the brain mechanism of thought consists of thousands of millions of correlated parts harmoniously adjusted. The interplay of these parts in their "million fold manifoldness," depending upon a division being made of their innumerable fibres, cells and centres, into a vast number of groups; each group consisting of a "centre" cell, a number of common cells under its control, with a vast number of connecting fibres running out in every direction. Then the centres themselves must be similarly correlated with groups of all the other centres.

All this is the beautiful and efficient machinery to account for memory by association of ideas. But it does not yet account for ATTENTION to a particular, where *all* the association memory fibres are not excited alike into activity, but somehow lose their action, and only the particular stands out sharp and clear. Something is yet lacking.

This subtle something is that which is liable to fool even the skilled metapsychist, and carry him over the border line into the white magic of mysticism and occultism. And right here it is perfectly logical and legitimate to slip into print, the almost imperatively obvious inference that the missing something is found in the existence of an Independent Intelligence herein personified as ELLU.

But instead of being premature, especially as I recognize no magic element in the personification of ELLU I will merely cite the case of the decapitated frog to prove that there *is* something else, decidedly real and strictly essential, entirely outside of and independent of the brain mechanism, although intended to work in entire harmony therewith. The frog, you know, will raise

his foot to brush away a drop of acid, placed upon his skin, *after his head is cut off*; or at least after his brain has been cut out and thrown away.

This action of the frog involved both memory and attention to a particular.

The best definition of memory by association and attention, I have been able to find in print, is contained in Professor Munsterberg's "Psychotherapy," (1909). This cannot be given in a few words. It will require a number of quotations.

When the Professor ruthlessly tossed the pet of the psychologists and spiritists, namely the "subconscious mind," or "subliminal," as an intruder, entirely outside the citadel and breastworks of science, it must not be understood that he intended thereby to demolish what Emerson called the "propoundings of the double consciousness." On the contrary, he definitely recognizes two distinct phases of mind. One he calls *purposive*, the other *causal psychological*.

The purposive is the one I personify as ELLU only I do not recognize this faculty as *mind* at all. The causal, the one that can never operate or have any existence independent of a physical mechanism, is the one I identify as mind. is the one that can never operate or have any existence independent of a physical mechanism.

"The psychologist, like the naturalist," says the Professor (p. 27), "aims towards explanation, and it is this demand which forces him to look from the psychical facts to the physical ones, from the mind to the brain. He is under an illusion if he fancies that he can explain mental facts by themselves. The purposive mind has its connection in itself, the causal psychological mind demands for its connection the body. To understand this necessity is the first step towards understanding the relation of mind and brain."

Concerning the mystery that makes the difference between the general memory of a whole scene, and a vivified attention to a particular object in it, when all the other features of the scene fade out of recognition, he says (pp. 28, 29), "The first step towards such explanation is, of course, in psychology as in all other sciences, the careful observation of regularities. . . . Psychology has known, for instance, for two thousand years, that if we have perceived two things together, and later we see the one again, the new perception brings us a memory image of the other thing. If we saw a man's face and heard at the same time his name, seeing his face may later awaken in us the memory of his name, or hearing of his name may later awaken in us a reproduced image of his face. . . .

"The one idea may bring to me another idea by association, but as long as I consider both as strictly mental facts, I can never understand why this association happens, I can never grasp the real mechanism of the connection. I can never see necessity between the disappearance of the one and reappearance of the other. It remains a mystery which does not justify any expectation that the same sequence will result again. . . . It has brought about the intimate relation between psychology and the physiology of the brain, and has given us, as foundation, the theory of psychophysical parallelism; the theory that there is no psychical process without a parallel brain process. . . . Is it necessary to express again the assurance that such statements of a parallelism between mind and brain in no way interfere with an idealistic view of inner life? Have we not seen clearly enough. . . . that our life reality is purposive and as such outside of all causal explanation, and that we have to take a special, almost artificial point of view to consider inner life at all as objects, as contents of consciousness and thus as psychological material? But since we have seen that for certain

purposes such a point of view is necessary, as soon as we have taken it, we must be consistent. Our inner life in its purposive reality has therefore nothing to do with brain processes, but if we are on the psychological track and consider man as a system of psychological phenomena, then to be sure, we must see that our only possible interest lies in finding the necessary causal connections."

The next quotations I want to call your particular attention to as they are especially significant and important to the clear apprehension of the purpose of the little diagrams I am about to present. It may be well to state briefly a few points that are to be kept in mind: first, concerning the brain mechanism, the prodigious number of its correlated parts; for instance, biologists say there are over six hundred million brain cells; and as each cell has "tree-like" fibre connections leading to every other cell in the whole brain, these necessary parts are therefore counted by thousands of millions. Nature has classed these into certain grand divisions, according to the sense impressions which they are to handle in the business of life; then that these grand divisions must be subdivided into groups presided over by "centres," is what the little diagram and number relations are to illustrate, imperfectly, to be sure.

Second, that the whole theory as to how memory by association of ideas must work, cannot be explained at all without the assumption of a double process—that is to say with two factors, the sensory and the motor parts. That these necessarily involve a third factor, through which they become operative, or are transformed one to the other, may not be so readily admitted. But this third element is what I apprehend is meant by the term "*motor setting*."

"We started, for instance," the Professor continues (pp. 42, 43), "from the old observation that two impressions which come

to our mind at the same time have a tendency to re-awaken one another; and we saw that psychology was well able to formulate these facts in general statements of the association of ideas. But we realized that that in itself is not really explanation. . . . Now the association of facts, (that the smell of a thing arouses the memory of its name), would indicate that we got the first two impressions together, because two brain processes were going on at the same time. My nose brought me the smell stimulus, my ear gave me the sound stimulus, each going on in a *particular centre*. . . (The italics are mine, as that is the very point I am going to illustrate.) . . .

"The connecting way becomes a path of least resistance, and that means that if, in future, one of the two brain cells becomes excited again, the overflow of the nervous excitement will not now go on easily in all directions, but only just along that one channel which leads to that other brain cell. A theory like this explains in real explanatory terms." . . .

And yet here we must bear in mind that the theory thus far explains nothing but the general fact of memory by association; it explains nothing of the mysterious phenomenon of "attention." On this point, Professor Munsterberg says further (pp. 45, 46), "yet even the highest development of the association theories did not seem to do justice to the whole richness of the inner life. We may well understand through those association processes that a rich supply of memory pictures is at our disposal, that ideas stream plentifully to our minds and enter into new and ever new combinations. But that alone is not on account of our inner experience. If there is anything essential for inner life, it is the attention which gives emphasis to certain states and neglects others. . . . Here were always the real difficulties of the association theories; they seemed so entirely unable to explain from their own means why certain

states become foremost in our minds and others fade away, why some have the power to grow and others are neglected. These facts of attention and vividness, inhibition and fading, worked almost as a temptation to give up the physiological explanation altogether and to rely on some mystical power, some mental influence which could pull and push the ideas without interference and help from the side of the brain. . . . If the facts which cluster about attention cannot be understood by the simple scheme of associationism, the demand must be for a better physiological theory."

But the old theory is good as far as it goes. It is not to be abandoned by any means. It is supplemented by a masterly exposition of the "double process" by Professor Munsterberg, through succeeding pages of the work from which I have quoted, in which he shows that the old theory stopped half way. It considered only the direct *sense* processes as necessary to a completed mental act. The *motor* processes, connecting with the muscles, were merely an inferior adjunct, that came into play only after the mind had finished its process through the activity of the sensorial spheres alone—the only truly "noble element" of the intellectual Gray. But to continue the quotation.

"If a neutral fair account of the brain actions is attempted, there can hardly be doubt that this whole sensorial view of the brain is only half of the story and that the motor half has exactly the same right to consideration. . . . Adjustment every moment demands the relation of the brain in both directions. Through the sensory nerves the brain receives; through the motor nerves the brain directs, and this whole arc from the sense organs through the sensory nerves, through the brain, through the motor nerves and finally to the muscles, is one unified apparatus of which no part can be thought away. The brain in

itself would be just as useless for the organism as the heart would be without the arteries and veins."

See how more and more the science of psychology is coming to recognize at last the legitimate royalty of that RED element in psychic life for which the conception of ELLU stands, and which has been so ignominiously slighted and abused—for lo! these many years. But that's aside from the present purpose.

With this brief outline, we may now consider the more direct and practical purpose of the present chapter, namely to mentally visualize by diagrammatic aid, how the hidden relations of numbers specially grouped, (specially grouped because as matter of fact the brain cells themselves are specially grouped, as the very distinguished authority last quoted says, "If I distinguish ten thousand different pitches of tone, they would be located in ten thousand different cell groups, each connected through a special fibre with a special string in the ear"), how the hidden relations of numbers especially grouped may illustrate most beautifully the mysterious influence of the brain "*centre*" in producing the mental phenomena of attention.

In the first place, the chart which is herein used as a key to the questions put to the "Oracle," is supposed to represent roughly and symbolically, a very small section of the human brain cell arrangement. This chart is composed of 729 cells, numbered from 1 to 729. They are arranged in 27 rows of 27 cells in each row. But while they are numbered consecutively from one up, *these numbers are grouped in peculiar manner*. And though this represents only a very small portion of the brain—small in the relation which 729 bears to over 600,000,000, yet small as it is, it will presently develop mysteries of grouping relations so profound in nature and possibilities as to confound the most magnificent intellects of the day.

I have elsewhere claimed the absolute originality of this ar-

rangement, but dear me, let it not be understood as repeated in a boastful mood—far from it, for I must freely admit I do not understand it myself. And I must here acknowledge my deep obligation to a great mathematical genius, who, by the way, said he had been informed of having had a previous existence on earth, as a Chaldean, some five thousand years ago. But this rare and lovable spirit was a man of flesh and blood, and he it was who first revealed to me—not in a dim light seance, but with pencil and pad in broad day, a very peculiar method of constructing what some modern named, in a fit of forlorn stupidity, a magic square. But it would be the height of impropriety,—frivolous and unworthy of my present purpose, to apply such a vulgar title to an illustration of brain mechanism action, wherein any trace of magic is scorned as absolutely tabu.

Any one who has ever attempted to visualize mental action by diagram or tangible illustration, will appreciate the inherent adaptability of numbers to the purpose. For what other thing is there known to human reason, that is rigid and tangible in its symbols, yet preserves even in visible black or white, the ever fluxing evasiveness of the invisible relations that pervade and bind them? The absolute differential skew that pervades that symbolic word *invariant*?

In the centre cell of this chart, I placed the number 365. Let us say that that number represents *my* identity, or my right and normal personality. Some other number would represent your identity and so on. It will be very useful to bear this little point in mind, as we proceed, for sometimes personalities and logical *values* are imposed upon, when strange and bewildering results follow, as in hypnosis, and dissociated personalities, but there is no *magic* in it.

So let us say that in the small fraction of brain, all groupings thus symbolized, 365 represents, also symbolically of course,

the "motor setting centre" for that particular sphere. Then just so sure as a sense impression, or an idea brings an initial impulse to any cell within that group, just so sure will the invisible influence of that centre come into play in determining the path of action. For that influence pervades not only every other cell in that group, but potentially may reach any other cell or group of cells anywhere in the whole six hundred million, more or less, of the human brain. And in the particular personality assumed, the *value* of the cells thus involved would invariably and inevitably together make up multiples of 365. Not only this, but symbolically considered, the sensory and motor pairing groups are symmetrical as to FORM. But this is a little ahead of the story and will be amplified further on.

For the present purpose, the legitimate field of *this* "motor setting centre," is the 729 cells of our chart. Now let us see how profound are the influences exerted, even by this single centre, which pervade and rule as it were, every other cell or group of cells throughout the chart.

Let us take them for instance, first in the very simplest groupings—those in straight lines, no matter in what direction. Take the first left hand column of 27 cells. The whole being consecutively numbered, of course not another cell anywhere in the chart is the exact equivalent of the centre (365). But *as a group* of 27 cells, their aggregate sum *is* exactly equivalent to 27 centres. Test it. Add up the column; then multiply 365 by 27 and you will find the two results the same. This is also true of any and every other possible straight line of 27 cells in any direction, up and down, right and left or diagonally.

So it is also true of apparently irregular groupings, either of a less or greater number than 27, (equidistant from the cen-

tre), that, added together, they will be exactly equivalent, in numerical value to as many centres of 365 as there are cells involved in the groupings. For instance, take the single upper left hand corner cell, 392 and the lower right hand corner cell 338, involving only two cells, yet together they make the sum 730 which is, of course, the exact equivalent of the two centres of 365 each. This is true of any other two cells similarly selected.

Now, similarly, take any number more than 27 cells; say you take the 20 adjacent to and including each of the two above mentioned, 40 cells in all; here it will be found again that all these together will foot 14,600, which is also equivalent to forty times 365, or 14,600.

So in brain action, there is no escaping the pervading influence of the "motor setting centre," so long as the brain in question is governed by its own sane and normal identity or personality.

Until the existence of these invisible sympathies, or liens of association between the few numbers of the various little cells in the chart are pointed out, the numbers themselves will appear to have no more purpose or design or intention in their jumbled, unconsecutive juxtapositions, than are recognizable in the occurrences of haphazard events in a disordered dream. And, as what is called a disordered dream may appear so only because its symbolic meaning escapes the detection of consciousness, and would be harmonious and true to the idea presented if detected, so when these invisible sympathies between the numbers are materialized, as it were, and made visible, they are seen to weave intricate but always symmetrical designs.

Now to make a specific application of the principles, to an individual case for a more graphic visualization of the idea, let us assume that I am seated at the theatre, witnessing a play. The general current of thought thus aroused is flowing smoothly, when suddenly a new idea is thrust upon the mental scene, entirely extraneous to the play which causes a new momentary setting of my *attention*, but which, at the same time does not obliterate entirely my general observation of the events of the

The new idea suddenly thrust into the midst of my mental pictures aroused by the actors and effects of the staging, is play.

caused by the entrance of a lady who takes the vacant seat beside me; at her corsage a little bunch of old fashioned heliotrope. Along with the peculiar fragrance of that particular flower comes the lighting up of an entirely new set of memories previously long forgotten. For the sake of the illustration, let us say that my memory of the odor of heliotrope, which might have been located in any one of the vast number of cells in the olfactory sphere of the brain, was, as matter of fact, stamped upon cell No. 203, which cell, though long dormant, suddenly flashes up clear and bright under this new sensory impulse from the smell of heliotrope. Along with it there shines out in my memory also the face of an old and dear friend of earlier years, whose favorite flower it was.

Let us not forget at this point, the postulate of psychophysiological science, that all mental actions are double in nature, through the co-operation of sensory and motor cells. It follows that cell No. 203, being excited, it must immediately send its current somewhere, over some fibre path to some other cell; and having been previously connected with that particular cell

which bears the impress of my friend's face, it would most naturally take that same path again. But that explains nothing. Why is the memory of that face in one cell rather than another in the first place?

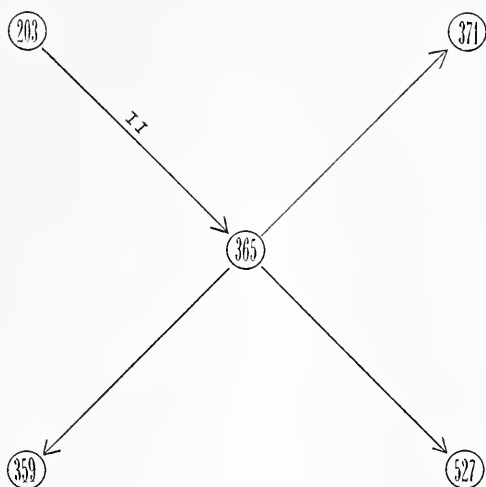
Here is where the perfect beauty of the present illustration begins to unfold itself. For it will visualize how nature may have provided that only one out of over six hundred million cells, (if I have so many), could by any possibility be the one to respond to cell No. 203—in a sane mind. For, again, it must be borne in mind, that we are considering the operation of my mind, at a play, and that the all pervading personality of my “motor setting centre,” is represented by the cell which bears the number 365.

The recognized general principle is that a brain cell must operate through its own centre first, no matter how complex and far reaching the train of thought may afterwards become. What more logical than to assume that the very purpose of such a centre, is to determine the course or direction which the new impulse from without must take? In this particular case, my centre value being 365, its own pervading influence passes into the current or impulse being transmitted, and, automatically as it were, metaphysically speaking, the energy or intensity of the current is regulated by a feeling of *want*, such as characterizes chemical affinities for instance, a want which only one other cell in my whole brain can satisfy. In this particular case, the feeling of want is an inherent desire for harmony and symmetry, such as pervades the ratios and relations of NUMBERS. Now the only single cell in the hundreds of millions within my skull that will co-operate with cell 203 to make the first multiple of

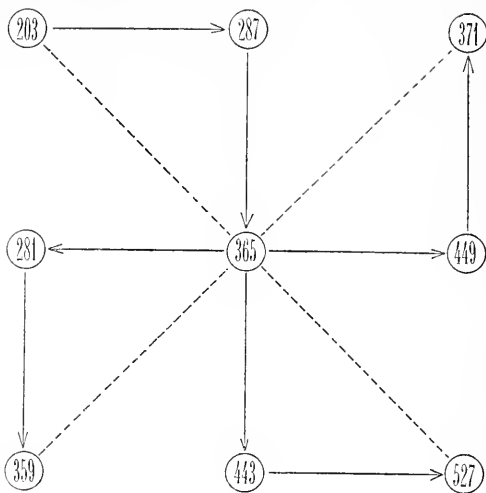
365 (730), is cell 527. So it was cell 527 that associated itself in the first place with the fragrance of heliotrope which happened to be impressed upon cell 203; and the association in fact was the image of the face of the friend who wore the flower. Therefore the fibre that first connected those cells was the one most likely to glow again under a new similar impulse.

But it is not an old picture, an old fact laid aside all these years, and now dusted off to be used again, it is a NEW memory. When cell 527 was again excited there shone forth in my memory the image of the sweet face, but it was a new act, a new memory, produced by a new smell of heliotrope.

The play on the stage proceeds and I follow its thread of interest, but the little by-play of memory pictures started by the odor of heliotrope, a play within a play, does not stop with the face thus recalled. Quickly another fibre glows and at its end cell 371 lights up, and so I see again in memory the swell of the gentle breast on which the flower reposed. Another fibre glows, and the costume she wore on that occasion is added to the mental picture. Cell 371 having lighted up, for similar reasons to those already explained, the cell that follows in the sequence must be 359. Now this is all determined by the centre through its invisible ties and sympathies with every other cell, and the resulting symmetries from its pervading influence, is best mentally visualized by help of the following diagram, where the arrows show the various directions the impulse takes from the centre; the initial impulse starting from cell 203.



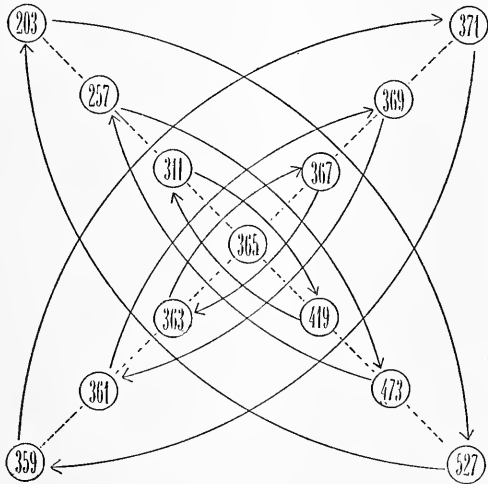
Now it might well have happened, as it does sometimes with me, and doubtless does with other minds, that the initial impulse should not proceed directly to its most logical end, (in this case memory of the face and personality), but involve itself at the very first instance, with a side issue, say the *color* of the flower and the ribbons that matched it. Such a complexity, caused by a double sensory initial impulse, will change the path to the centre; and the resulting symmetries will appear in a different form. Let us say cell 287 received the sense impression of color through the eye. But by no possibility can the influence of the centre (365), be dodged or evaded, (so long as it is not a case of dissociated personality or hypnotism, etc.) In the case assumed the same results previously reached, involves new paths and a changed symmetry of form, thus:



But here again the inherent and pervading harmony of numbers is not disturbed. It will be observed that in this new form presenting the ancient swastika cross, nine cells are involved. The aggregate sum of these nine cells exactly balances the numerical value of nine centres. As sure as the centre will dominate every symmetrical group of cells, so sure will your personality pervade and permeate every mental act of your life always with this saving clause, *so long as you are yourself*. Therefore *be yourself* under all circumstances.

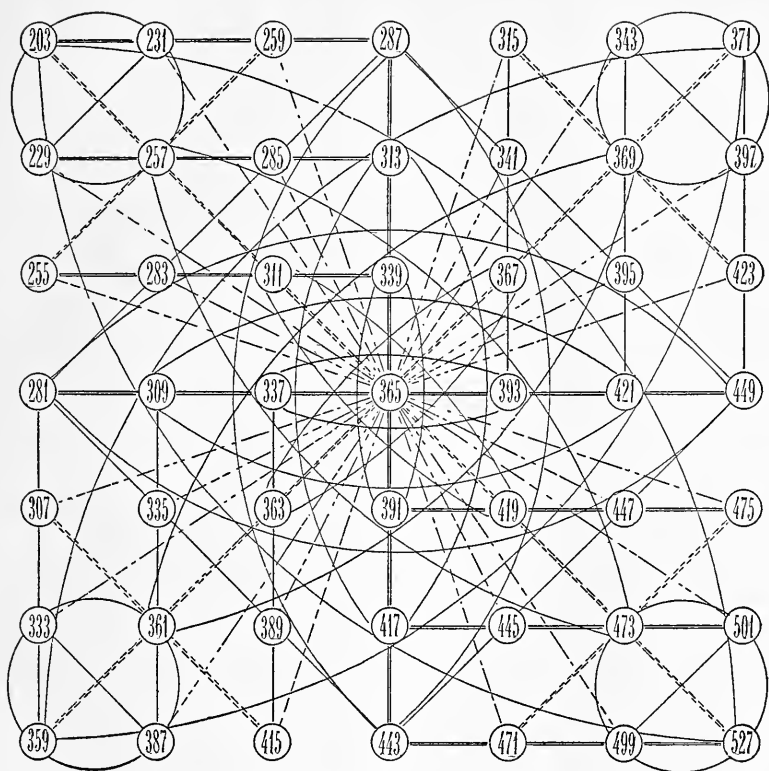
Some one is sure to ask, how about the intervening cells that actually exist in the line of the first "path" from 203 to 527? Why did they not become excited by the passing impulse and so confuse and possibly side track the main train of memory?

Now that, I believe, is exactly what does happen in minds devoid of the power of abstraction, and hence the need of cultivating that power as outlined in a previous chapter, and in minds which "scatter" easily and do not pursue directly the logic of the basic fact presented. But in minds which *can* abstract those intervening cells are as much ignored as if they did not exist at all, at least until they find their legitimate place in the sequence of memories: As if the path of logic from basic fact to legitimate inference swept around them, still true to the centre without necessarily actually touching goal each time. In which case other independent symmetries, inherent in those first intervening numbers, are lighted up and may be visualized as follows:



But in this case we find a still larger number of cells involved, namely thirteen. And their inherent loyalty to the centre is found in the fact, as in the former figure, that their aggregate sum exactly balances thirteen added centres.

In order to get even a faint idea of the "million fold manifoldness" of our mental lives, let us call to mind that the whole chart is composed of only a few hundred cells out of the over six hundred million cells of the human brain; that the very few individual pairs of cells out of the few hundred that compose the chart, so far brought into action—not by the memories of events of the day, nor by the play on the stage, but by the single insignificant little incident of a smell of heliotrope,—that these few pairs outline a section so comparatively small that it contains, as a symmetrical group all told, only forty-nine cells. Then consider that as matter of fact every mental action, accompanying even a turn of the hand or a change of position, is constantly branching out into ever-widening spheres of memories whose prodigious complexities stagger all efforts to follow, then turn to the picture of only a part of the complexities of symmetries and values involved in a little sphere of only forty-nine cells excited into *direct* action, (to say nothing of their million fold connections with other groups),—then down on your knees and thank God—especially in the morning, when you return from the land of dreams for the continued possession of your reason.



It will be found easy to follow the appropriate lines that will visualize all the principal forms of the cross: Namely the swastika, (good luck symbol), the Egyptian symbol of life. The Roman or Latin cross, the Papal, the Patriarchal, St. Andrews, the Greek, and the cross of Malta. Other designs might be added, still preserving the numerical symmetries.

There has been at times some wonderment expressed over the immense antiquity of some of the various forms of the cross. For example,

the so-called swastika and the Egyptian symbol of life; which last are the ones whose tops are shown by the little circles enclosing the group of four numbers in the four outer corners of this small section of the main chart. Such wonderment may possibly find relief in considering that perhaps those very forms had their source and root in the fact that the normal operation of brain cell mechanisms may themselves produce such forms—unconsciously of course—but perceptible to the eyes of the spirit of instinct, as it were,—to the *Radio Consciousness* of ELLU in other words.

It does not yet appear just how the ever-widening spheres of memory activities, referred to as set in motion even by the most trivial facts of every day life, may involve hundreds of millions of other cells, outside the field of this particular motor setting centre with its 729 cells; which not only involves new and wider spheres, but carry into them the pervading influence of the dominating personality of the first centre excited. But the illustration will hold good.

Let us return once more to the basic facts. It is *my* brain that is being used for this supposititious illustration. We have thus far followed only a little way the ramifications of an impulse excited by an accidental smell of heliotrope—a little by-play enacted while the play on the stage was the main affair of attention. We assumed that the initial and governing centre of personality for my brain activities was set by Destiny at 365. On the preservation of the influence of that centre throughout the workings of the whole mechanism, must depend the dominance of my personality, that is to say, of my continued sanity.

Another basic fact is the enormous multiplicity of cells and fibre connections that make up a human brain—they say six hundred millions cells, with “tree-like” fibre connections with every other cell. Now if the motor setting centre of my identity requires a grouping into sets of 729 cells each, we have only to divide 600,000,000 by 729 to find out how many motor setting

centres I am blessed with. In round numbers it would be over eight hundred thousand "grand centrals," each with direct but not exclusive jurisdiction over its own group of 729 cells. We are next to assume that the whole six hundred million cells of my brain—or what I have—are all numbered from 1 up consecutively. As each cell is an individual entity, it must have its own independent number value. In not a single instance is any number actually duplicated. Yet 365, my personality, must appear somehow, and dominate every centre. This seems to complicate the problem. In fact, it simplifies it. Without it the scheme itself would quickly run into a meaningless jangle of misplaced numbers.

For, if we begin numbering a second group of 729 for a new "field" of mental activities, we must begin numbering where the first group left off, namely at 730. One might think that would be the very number of a new centre, since it is the first multiple of 365. And so it is—only it cannot escape the dominance of the unit that represents my personality, the *initial* centre—my identity—365. So we put 730, (only mentally), in a new centre, the real figures being 1,095, since that is 730 with 365 added to it. Thus 730 is simply absorbed in the number of a new centre. Then the consecutive order of the count for the remaining 728 cells of a new "field," goes on under exactly the same system of precedence observable in the chart of the first Field of a Motor Setting Centre.

In precisely the same way the numbering of a third group would follow; beginning where the last left off, which under this illustration (my personality) would be 1,460. Here again the vital point, the original personality symbolized merely for the sake of this illustration in the number 365, is the concrete unit which must be carried forward and added to every new centre started with the last consecutive number. Therefore,

the motor-setting centre of a third "field," in my brain, would be 1,825. So it becomes perfectly apparent that this scheme can be carried forward to any extent, with all its exquisite symmetries preserved.

So the numbering of centre and cells for a whole brain being now completed, it is easy to make the further application of the principle to wider and more complex activities of memory and attention. I began by saying I was seated at the play. We have seen how the chance entrance of a lady with a little bunch of heliotrope touched off the hair trigger of a new motor setting, with its resulting symmetries of exquisite memories. But we have not been in a position to see till now, how that interplay of delicate memories could shine out in my brain and not mar or obliterate or even disturb in the least my general observation of the actors, the scenery and the events of the stage. Those events were merely exciting into activities, other groups, which under the sway of the dominant personality—365—were bound to mingle harmoniously in the endless interweaving of new and ever new symmetries of form.

It would be too tedious and quite useless to follow out these wider connections of groups and centres, and reproduce some of their symbolic visual symmetries of ever increasing complexities. The practical application of the principle to infinity almost is made evident and that is enough.

Psychic Symbolism.

Reason and speech to a spirit free
Are sandals of lead on a swimmer at sea.



IF the dictionary of the very highest branch of knowledge to which human reason can stretch its utmost reach, namely pure mathematics, need contain only three words to cover the whole vast range of its development, is it not also conceivable that our intuitional knowledge which far transcends conscious reasoning, may need no word vocabulary at all? That this is not the baseless assumption of a vague spiritualistic mysticism, I will show by quoting at once, what Professor Bertrand Russell of Cambridge, England, who is one of the most famous mathematicians of our day and generation, says in an essay published in the *International Monthly* (pp. 85-86-87). "People have discovered how to make reasoning symbolic, as it is in algebra, so that deductions are effected by mathematical rules. The great master of the art of formal reasoning, among men of our day, is an Italian, Professor Peano, of the University of Turin. He has reduced the greater part of mathematics (and he or his followers will, in time, have reduced the whole) to strict symbolic form,

in which there are no words at all. In ordinary mathematical books . . . little phrases occur, such as *therefore, let us assume, consider, or hence it follows*. All these however, are a concession, and are swept away by Professor Peano. For instance, if we wish to learn the whole of arithmetic, algebra, the calculus, and indeed all that is usually called pure mathematics (except geometry), we must start with a dictionary of three words. One symbol stands for *zero*, another for *member*, and a third for *next after*.

"What these ideas mean, it is necessary to know if you wish to become an arithmetician. But after symbols have been invented for these three ideas, not another word is required in the whole development. All future symbols are symbolically explained by means of these three. *Even these three can be explained by means of the motions of relation and class (groupings); but this requires the logic of relations*, which Professor Peano has never taken up."

(These last few lines of italics are mine; the quotations are from extracts printed in the *Monist* for January, 1910.)

We saw in the preceding chapter that the exercise of mental groupings, must in some unknown way involve the "logic of relations," since one of the reflex actions of such an exercise seemed to cultivate the powers of abstraction, which is only another way of naming the power of direct and exact, or consistently logical thinking.

But there exists a fine distinction to be kept in mind, between this invention of mathematical symbols for facilitating the process of abstruse but *conscious* reasoning, and the natural symbolisms of the intuitive perceptions in states of abstraction. This last is what is meant by Psychic Symbolism.

The symbols for conscious reasoning are necessarily fixed and rigid, and never vary their precise meaning. While on the

other hand, the symbols of the intuitive perceptions of sleep and abstraction flow into never ending changes of picturesqueness, yet whose basic elements are only three—Form, Color, Motion.

So it is not inconceivable that there may yet be found the clue or “lien” thread of their “logic of relations.”

No matter whether we can understand how it is or not, a relation exists. That the meanings of the symbols of visions are not *obvious* is nothing against their inherent accuracy.

“Obviousness is always,” says Professor Russell, speaking of mathematical symbols in the work last quoted, “the enemy of correctness. . . . since people have tried to *prove* obvious propositions, they have found many of them false. Self-evidence is often a mere will-o'-the-wisp, which is sure to lead us astray if we take it as our guide.” He had previously remarked, (pp. 85 - 86), “It is not easy for the lay mind to realize the *importance of symbolism* in discussing the foundations of mathematics, and the explanation may perhaps seem strangely paradoxical. The fact is symbolism is useful because it makes things difficult.” (The italics are mine.)

Dr. Paul Carns takes exception to this and says, “we would not say that ‘symbolism is useful because it makes things difficult,’ but because it makes thought exact, and though it prove difficult in the beginning, it will make exact thinking easy.” This recalls the pithy saying of the prophet, “It is the glory of God to conceal things.” (Prov. xxv, 2.)

I have promised to steer clear of all church questions, but I cannot resist repeating at this point that it seems to me, an outsider, passing strange that the theologians do not make more of this their most powerful argument. If it is the glory of God to conceal things, is it not I wonder, because God knows it will promote the *cultivation of Idealism*? Don't the domines know

that that is the *only* antidote for the deadly (spiritual) poison of materialism which the scientists, unwittingly perhaps, have been dosing out to the masses?

Perhaps the most significant fact of these times is the rapidly growing number of people who have developed a belief amounting to conviction in the *existence* of an outside, independent intelligence, which is intimately connected with every happening of life. Indeed, even science itself is convinced to the extent that it is actually inventing theories of a psychophysiological basis for all its phenomena.

Furthermore, belief in the possibility of tapping the great common reservoir of knowledge, is even more wide spread than belief in its existence. The wide spread popular application of course, is, naturally, a desire to know the future. For I apprehend that the deep significance under this universal movement of inquiry into the meaning of psychic phenomena, is really the insatiable desire and lurking *expectancy* of humanity to know the future, never before as imminent as now.

"It has always seemed to me," says Maurice Maeterlinck, "almost incredible that we should not be able to know the future." And Dr. Arnaldo Cervesato says, in a recent issue of the London Annals of Psychical Science that "all who admit of the existence of Destiny will see nothing more than natural in the fact that she indicates the way at each turning of the road."

So the question comes to this. *Is there any practical common sense way of cultivating the power of translating to consciousness, the symbolisms of this superior intelligence that mixes in the affairs of human life most closely in certain states of abstraction?*

For again, it must be observed that the best evidences we have of the normal methods of such communications are symbolic in nature. That is to say, dreams and visions, whether of deep

sleep or of states of *abstraction* resembling sleep, very rarely produce the *slower vibrations* of sound, which of course, is the exclusive phonetic basis of our speech.

On the general question of psychic symbolism, I cannot do better than quote at some length from lucid and masterful articles contributed to the *Annals of Psychical Science* (London) Vol. VI, pp. 235-366, by Ernest Bozzano.

"From the point of view of scientific and philosophical abstraction, in the domain of thought all is symbolic, from the manner in which the organs of sense enter into relation with the reality hidden behind the phenomena representation, right up to the intricate elaborations of human language, which is an abridged and conventional form of primitive symbolism, verbal, graphic or by gesture.

"Art itself is only an exalted form of symbolism created to complete the insufficiency of language. True and great poetry consists in clothing thought with symbolic images capable of transmitting to the reader, delicate shades of feeling and aspiration which cannot otherwise be communicated. Similarly the plastic arts, by means of representative symbols, objectify in marble, or on canvas, states of mind or impressions of surroundings which cannot be completely expressed by ordinary verbal language. Finally, music is but the most sublime form of symbolism, translating aspiration and intention into terms of harmonious vibrations; one is almost disposed to define music as: a revelation of states of mind *syntonizing* with supersensible reality.

"My object in making these remarks is to suggest that from the above indicated point of view the human psyche (soul) *exists and expresses itself in a world of purely symbolic representations*"—(The italics are mine.)

— . . "There is metaphysical symbolism every time an idea

is transmitted by means of *representations* which are not *re-productions*."

And again after speaking of the ideographic transmission of a "subliminal message," a most unfortunate term—indirectly, by forms differing from the idea to be transmitted, Professor Bozzano says:

"There exist other cases, however, in which the forms of symbolism, instead of arising in conformity with psychological laws of association, by contiguity and similarity, seem, on the contrary, to spring into consciousness independently, as if provoked by a sub-conscious, or even extrinsic will, a will often incapable of transmitting the idea otherwise than by symbols, but often also thus acting with intention. These are the cases which deserve the closest study."

At this place, I want to make a general assertion of a very sweeping kind, and will say in preface to it, that for establishing the point it is not necessary to either accept or reject the theory of the spiritists that cases of supernormal symbolism arise from the active influence of the disembodied spirits of friends (or enemies) in the other world. They may or they may not. The present point is, that through untold ages and generations inattention to the *fact* of such mysterious mental symbolizations in every day life—particularly in sleep, and the active rejecting and scorning of the study of dreams as anything possibly worth while, a fixed habit of instantly forgetting such symbolizations has been formed. So that we, of this late day, do not even know how to begin a systematic rescue of the symbolic message vehicles of sleep perceptions, from being immediately jumbled into the numberless hidden cells and secret dungeons of that great storehouse with its blind bolts and locks, of things *once* perceived and forgotten, over whose dark portal medical science has chiseled the apt inscription CRYPTOMNESIA.

Only it is more general than supposed. It is the universal blight.

This then is the bold assertion I would make: Could the poorest and humblest man of ordinary intelligence, experience and observation, recall things perceived, asleep or awake, and forgotten, from his storehouse of unconsciousness, for instant application to any ordinary problem of life, his insight and penetration to the heart of the problem would be vastly more sure and conclusive, scientific and lucid, than the slowly reasoned out results of the most learned philosopher in the world, taken at his best, but under the universally existing handicap of cryptomnesia.

There is a vast accumulation of evidence already, and every day it is multiplying in metapsychical books, that goes to prove the fact, that truths in any way once even momentarily perceived, though apparently utterly lost to consciousness, *are never really lost and may be recalled.*

As the deepest perceptions are doubtless formed in sleep, so sleep or a condition resembling it, is the only one which can again throw back the double bolts to memory's awakening. On this very point I again quote from Professor Bozzano's article.

"During physiological sleep, thoughts and memories are inclined to take on an emblematic form and to dramatise themselves. This is due to the almost total suppression temporarily, of the peripheral of sensorial perceptions and to the inactivity of the inhibitory centres, with the consequent suppression of a multitude of associative moderating links between the various centres of ideation. Under these conditions each activity which may exist in some psychic centre, being no longer arrested, is intensified in such a way as to inevitably take on an objective and active form. This condition is propitious to the accidental

emergence from the depths of consciousness of the most distant memories."

The habit of "crystal gazing" is a form of self hypnotising which brings about a state of abstraction closely resembling sleep, and Maury in his classic work quoted by Professor Bozzano, *Le sommeil et les Reves*, gives an extraordinary and typical case of symbolic cryptomnesia. Maury says:

"On March 20th, I happened to want the date of Ptolemy-Philadelphus, which I could not recall, though feeling sure that I knew it, and that I *associated* it with some event of importance. When looking in the crystal some hours later, I saw a picture of an old man with long white hair and beard, dressed like a Lyceum Shylock, and busy writing in a large book with tarnished massive clasps. I wondered much who he was, and what he could possibly be doing, and thought it a good opportunity of carrying out a suggestion which had been made to me, of *examining objects in the crystal with a magnifying glass*. This revealed to me that the old gentleman was writing Greek, though the lines faded away as I looked, all but the characters he had last traced, the *Latin numerals* LXX. (symbol of a Greek translation of the Hebrew Scriptures, the Septuagint.)

"Then it flashed into my mind that he was one of the Jewish Elders at work on the Septuagint and that its date, 277 B. C., would serve equally well for Ptolemy Philadelphus. It may be worth while to add, that though the fact was not in my *conscious* memory at the moment, that I had once learnt a chronology on a mnemonic system, which substituted letters for figures, and the *memoria technica* for this date was, 'Now Jewish Elders indite a Greek Copy.'" (The italics and parentheses are mine.)

Many other examples of various kinds might be cited, but I have purposely chosen those which relate to symbolic *visuali-*

zations, because as Professor Bozzano says, this kind is "much more frequent than auditive, graphic or mimic manifestations. This is partly due, probably, to special conditions necessary for their production, (sleep or abstractions), and also it is conformable to the general rule in all metapsychical manifestations of a sub-conscious origin, which is, in its turn, in direct relation with the supremacy which the visual type presents over all other forms of psychic idiosyncrasies."

In brief, Professor Bozzano in drawing his extremely perspicacious views to a close, remarks concerning certain yet more abstruse forms of psychic symbolism that "although subject to associative determinism, seem to be elicited by and directed towards a *purpose previously determined by a will which is not exactly that of the percipient.*"

So, most of the great scientists arrive, like Myers in his wonderful book *Human Personality*, at an acknowledgement, more or less pronounced, of the bare possibility that the unknown will or intelligence that operates, may be a spirit. But are honestly perplexed and uncertain as to whether or not it may be considered a spirit of the dead, *or some unknown power of the Prescient Self.*

Two important points are to be noted here.

(1) The indubitable existence of a prescient intelligence of some sort.

(2) The guiding intentions of which, when understood, are distinguished for morality and wisdom. These are the golden facts.

Professor Bozzano further says, p. 351, "When the predictions" (of premonitory symbolism), "contain messages which tend to excite base human passions, such as greed of gain, the symbolic forms in which they are conveyed are of a kind which cannot be understood until the event is accomplished."

In another place he quotes from Maryatt's book *There is no Death*: "It is one of the commonest remarks made by stupid people, 'If the spirits know anything, let them tell me the name of the winner of the Derby and then I will believe them, etc. I was speaking of this once to 'Dewdrop'" (a mediumistic spirit) "and she said, 'we *could* tell if we chose, but we are not allowed to do so. If spiritualism was generally used for such things, all the world would rush to it in order to cheat one another. But if you will promise me not to open it until after the Derby is run, I will give you the name of the winner now in a sealed envelope, to prove that what I say is the truth.' We gave her the requisite materials, and she made a few marks on a piece of paper and sealed it up.

"It was the year that 'Shotover' won the Derby. The day after the race, we opened the envelope and found the *drawing of a man with a gun in his hand, a hedge, and a bird flying away on the other side.*"

How much easier to have written the word "Shotover!" But true to the principle and nature of supernormal perception, the message was in symbolic form.

It is certain that the power of this Independent Intelligence to impart intuitions, premonitions, presentiments, etc., is called into direct exercise in every day life, in almost innumerable instances. That we are as yet too stupid to heed them is not against the fact. It is, as matters of fact, well known to almost everybody of mature years, that one of the commonest manifestations of the existence of a power of prescience, is seen in those sudden previsions of a letter or message about to arrive—which presently does arrive exactly as foreseen.

All cases of prevision, where circumstances are foretold so minutely in detail, (even including sometimes exact atmospheric

conditions at a precise hour, which are unforeseeable), as to preclude the hypothesis of chance coincidence, "must be regarded as true examples of premonitory symbolism."

And of all the observed cases of symbolism, multitudes of which are recorded, those of a premonitory nature are most common and frequent. Even in those extremely rare cases of *post mortem* symbolism, when scientists, after the most rigid methods of examination are exhausted, are inclined to believe that the information may after all be imparted by the spirit of the deceased, psychological research shows most conclusively at all events, the fact of the intervention of some intelligent INTENTION, extraneous to that of the percipient's conscious will, whatever its source.

"These emblematic representations" says Bozzano, "indicate the *path* taken by the subconscious message in order to reach the normal consciousness, a path which varies according to the individual idiosyncrasies of the percipient and his subconscious interests. . . It is desirable to note on the one hand that sometimes the route followed in the transmission, or the translation into sensorial terms, of a supernormal perception only depends on the condition in which the percipient is at the moment of the transmission: that is to say that *each time that the subject is asleep or absorbed in some occupation, or even concentrated upon a crystal, subconscious perception can only emerge upon the plane of consciousness by the one sensorial route available at the moment, namely, that of an image.*" (The italics are mine.)

"It is therefore all the more demonstrated that these forms only denote the *path* of least resistance available for the translation of a subconscious perception into sensorial terms, which varies according to circumstances. . . It is enough to observe

that metapsychical symbolism conforms itself to the known laws of association by contiguity and similarity, certain extraordinary incidents compel us to seek much further for their psychogenesis in order to ascertain whether the *associative process* depends only on the functional determinism of the psychical centres implicated, or whether, on the contrary, indications may be formed which lead us to detect elements of *intention* more or less exterior to the percipient, which initiate, direct and use the determinism itself for predetermined ends."

From an exhaustive and masterly review of a large number of cases in point this author concludes as follows:

— . "We have found unmistakeable traces in favour of the hypothesis that the subconscious will of the agent, sometimes directs the development of the symbolism—a hypothesis which is scientifically legitimate, although difficult to practically demonstrate. . . .

"I was constrained to remark that in the same category of phenomena incidents were found which were not capable of psycho-physical interpretation, leading us to the *assumption of the existence of a subconscious Ego endowed with psychic faculties unknown to the conscious Ego, and of a superior quality.*" (The italics are mine.)

The only exception I would take is to the too vague phrase "subconscious Ego," as a name for a new and extra faculty of mind created unwarrantably by the psychologists. It's a palpable circumvention of the plain old fashioned Instinct, now refined into a faculty of a higher grade than pertains to animal preservation alone. There is no need to hunt mythical and mysterious new senses. But the logic of Professor Bozzano's conclusion is irresistible. It establishes beyond the raising of an eye-brow that ELLU is no illegitimate mental child begot of a

wayside flower in paths of psychological dalliance, but a true offspring of Superorganic Energy.

To continue the quotation: "This conclusion became more necessary in cases of phenomena of telaesthetic symbolism. At this point an example was quoted in which there were obvious indications of intention, which although still indefinite, was extraneous to the will of the percipient and seemed to start or direct the psychic determinism for predetermined ends.

"These indications became certainties when we turned to premonitory symbolism, and, if it was not yet possible to scientifically ascertain the psycho-genesis of the intention which manifested, it was nevertheless necessary to acknowledge, even whilst desiring to keep to the simplest explanation, that we were face to face with facts which attested indisputably the psychic superiority of the subconscious faculties over the conscious ones, with all the theoretical consequences involved. . . .

"We are further led to recognize that this determinism, far from appearing always to function blindly, sometimes shows itself in such a way that it must be held to be started and directed for the accomplishment of a purpose by a will which is certainly not that of the percipient, nor, in many cases, that of a telepathic agent. These are conclusions which may be legitimately accepted without departing from scientific methods of research.

"I do not at present intend to proceed further in the search for causes; but with regard to these it may legitimately be asserted that even if this intention resided exclusively in the subconsciousness, these facts would logically lead us to believe in the existence of a subliminal self provided with new faculties endowed with a will of its own, and possessing a mentality superior to that of the normal Ego; faculties, a will and a mind which are now sensorial, that is to say, independent of the law

of natural selection, and therefore imply a different destiny."

All of which further tends to establish the legitimacy of ELLU as a true Child of Superorganic Energy.

Any light on the methods, motives or system pursued by this supposititious faculty of subconsciousness, in selecting the special symbol it will use for any particular event, would be of the utmost practical value and interest. But, unfortunately, according to the "spirits" themselves, the effort is always tentative and the symbol only approximates a fit for the idea to be pictured. Doubtless because the world of intuitive perceptions is so immeasurably superior to our world of language with its Time and Space limitations.

A very pretty illustration of this point is found in the report of the "mediumistic personality" of a supposed spirit of a little child, "Nelly," as published in the *Proceedings of the Society for Psychical Research*, Vol. xvii, pp. 122, 127, 208. Mrs. Thompson was the name of the medium, and the spirit speaking through her was supposed to be that of her own little girl, who died very young. Nelly volunteers information in her own peculiar childish way, as to the manner in which she arrives at the names of people, who are total strangers to her.

"Funny the way I get names," says Nelly, "I get an association with flowers, or trees, or places, or all kinds of things. I see these like a panorama."

On another occasion, replying to Mrs. Varrall, who writes the account and whose mother's name was Mrs. Merrifield, Nelly said, "'Merrifield, Merriman, Merrithought, . . . Mrs. Merrithought, that is not quite right; it's like the name of a garden,' and after in vain trying to give me the name exactly, she said: 'I will tell you how names come to us. It's like a picture: I see school children enjoying themselves. You can't say Merrimans because that's not a name, nor merrypeople.'

Nelly later on spoke of my mother as 'Mrs Happyfield or Merri-field,' with indifference."

And again in Vol. xviii, p. 228, Nelly gave the name of a man as Harper.

"Q: 'How did you get the name?'


"Nelly: 'It was like the picture of a man playing a harp, and as you can't say Harpist, I say Harper.'"

On a former occasion, Vol. xvii, p. 127, Nelly explained that she herself knew when she was exactly right by means of "a feeling of *satisfaction* when the *right association* is found, which tells me it is right."

Referring again to the quotations from Professor Bozzano's most admirable contribution to the Annals of Psychic Science, written for the scientific researchers themselves, I desire to add that of course, with them for an audience, he had to use the terms which the psychologist had already endowed with peculiar significance to express ideas involved in their theories. So it has come about naturally enough that they all use such expressions as subconscious mind, subliminal self, subconscious Ego, and plain subconsciousness quite indifferently.

The Three Ways of Divination.

Containing Examples of Remarkable Dreams and
the Pendulum of Sleep.

HE innumerable and apparently unclassifiable methods of divination as practised in all ages, are in reality readily reducible to three main divisions or classes. It is a striking fact that these three ways are better, more clearly and succinctly outlined in the sacred writings of the ancient Hebrews than elsewhere in literature, which fact receives more particular reference in previous chapter.

The Century Dictionary states that the first attempt to raise divination to the dignity of a science is attributed to the Chaldeans; that the innumerable forms which have been in use for thousands of years may be reduced to two classes: (1) that effected by a kind of inspiration or divine afflatus; (2) and that effected by the observation of the collocation of things, falling of lots, etc. This classification is imperfect and unsatisfactory. Bacon's arrangement in his Advancement of Learn-

ing as quoted in the above work, would be much more acceptable if less ambiguously expressed; but this, too, is inadequate.

"Divination," says Bacon, "hath been anciently and fitly divided into artificial and natural; whereof artificial is when the mind maketh a prediction by argument, concluding upon signs and tokens; natural is when the mind hath a presentation by an internal power, without the inducement of a sign."

It is true that all of the innumerable forms and methods of divination practised from the remotest antiquity, seem upon analysis and sortation, to fall naturally into one or the other of the divisions named by Bacon. But this classification leaves something to be desired. Instead of natural and artificial, I would suggest the terms Direct and Indirect; but I would sub-divide the Indirect class into two, and call it Personal and Impersonal, so that we should thus have the Biblical Three ways, as outlined in the following arrangement.

THE THREE WAYS.

- I. Direct and strictly personal, as in dreams and intuitions, etc.
- II. Indirect, but personal by Instrumental Aids, as in the Oracle of Aaron's Breastplate, casting lots, etc.
- III. Indirect and impersonal by intervention of another mind mechanism, as in prophecy, clairvoyance, etc.

I. The direct or personal way—relating distinctly and directly to the self. That is to say all direct mental impression, or influences of a purely personal nature, concerning the indi-

vidual recipient, would belong to the first class: namely by dreams, or by mental abstractions resembling sleep and its "visions of the night," and by presentiments, intuitions, premonitions, inspirations, etc. The Research Societies have found authentic documentation of this highest class of psychic phenomena especially difficult to obtain, simply because of its purely private personal character. At the same time after over thirty years of the most persistent patience in piling up evidence of the other sort of phenomena, they are only just beginning to realize the supreme importance of this very class as pertaining more directly to the problem of human destiny.

As to direct information gained during sleep, "who can be surprised," said the old Syrian pagan Iamblicus, "that the mind, which contains in itself the principles of all that happens, should in this, the state of liberation, sleep, discern the future in those antecedent principles, which will make that future what it is to be."

So persistently perverse has been the habitual attitude of mankind for unnumbered centuries in considering the visions of the night as disordered phantasms—"vapours of the blood"—not as born of the activities of the genius of the Red element, Instinct, but as congestions of dark blood in the brain, from a disordered or overloaded stomach, that the mind has at last been *unconsciously taught to refuse them as impressions unworthy for memory to retain.*

I believe that universal habit alone explains why dreams are, as a rule, almost instantly forgotten, and are so seldom recalled later, so the meanings of their symbolisms are too seldom detected. A curious analogy might be drawn between the puerile messages received at seances, purporting to come from such spirits as Julius Cæsar or George Washington, and the fantastic vagaries of dreams. It is possible that in the case of dreams

they appear to us fantastic only because they are symbolisms, and their interpretations are lost through partial or imperfect reproduction in memory. For instance:

Ben Jonson told Drummond that he lay awake one whole night, gazing in mute admiration and enchantment on his own great toe; for surrounding it in Lilliputian miniature were the inhabitants of Carthage and Rome and Tartary and Turkey in bewitching varieties of manners and costumes. "But," said he, "I was at the same time aware it was all illusion."

The whole significance of the tale for us, is in his concluding remark. The cultivated state of suspicion that the activities of the consciousness in any state of abstraction at all resembling sleep, must be necessarily foolishness, was the very state to repel both memory of the more significant details, and apprehension of the whole, as a possible symbol of something of great moment to him.

To get direct results from this first division of the three great ways of divination, the right state of mind is an absolute essential. In a word, faith in your ELLU. There is a great wealth of material from authentic history to maintain this point. I will cite a few only. The selections are of various kinds, to illustrate the different results desired by the subject who dreams. Such, for instance, as in one case to gain some point of hidden knowledge or elucidation of a vexing problem; or to effect some elusive, complex and puzzling arrangement of given elements in some desired construction; or those otherwise unaccountable perceptions of abstract truths absolutely beyond the reach of unassisted intellect, such as the work of Newton in his moments of rare abstractions, or the astounding prodigies of calculation, equally beyond reasoning out, as in the cases of Zerah Colburn and Buxton and others—which no theory has ever satisfactorily accounted for.

Dreams and visions relating strictly to revelations of knowledge, solving of problems and the like, earnestly desired by the dreamer, are probably not more common than the fact of the intuitions of destiny, but they are vastly more common in the authentic records of investigations. I take for example from the Biography of Professor Agassiz, by his widow, (*Cycloponia spinosum* Agassiz, Researches, Vol. IV, p. 20.)

"He had been for two weeks striving to decipher the somewhat obscure impression of a fossil fish on the stone slab in which it was preserved. Weary and perplexed, he put his work aside at last and tried to dismiss it from his mind. Shortly after, he waked one night persuaded that while asleep he had seen his fish with all the missing features, perfectly restored. But when he tried to hold and make fast the image it escaped him. Nevertheless, he went early to the Jardin des Plantes, thinking that on looking anew at the impression he should see something which would put him on the track of his vision. In vain—the blurred record was as blank as ever. The next night he saw the fish again, but with no more satisfaction, when he awoke, it disappeared from his memory as before. Hoping that the same experience might be repeated, on the third night he placed a pencil and paper beside his bed before going to sleep. . . . Towards morning, the fish reappeared in his dreams, confusedly at first but at last with such distinctness that he had no longer any doubt as to its zoological characters. Still half dreaming in perfect darkness, he traced these characters on the sheet of paper at the bedside. In the morning, he was *surprised* to see in his nocturnal sketch features which he thought it impossible the fossil itself should reveal. He hastened to the Jardin des Plantes, and, with his drawing as a guide, succeeded in chiselling away the surface of the stone under which portions of the fish proved to be hidden. When wholly exposed, it correspond-

ed with his dream and his drawing, and he succeeded in classifying it with ease."

And for an example of desired and difficult construction, take the instance of the invention of the first sewing machine. It is related that Elias Howe's remarkable solution of that baffling problem in mechanics, was consummated only after a vivid dream during one night's sleep, which pictured to him a radical departure in principle, from all his previous efforts. And, as usual in great strokes of genius—helped out by ELLU—, the crowning idea was marked by simplicity itself, namely, the threading of the needle *at the other end, i. e., at the point*, instead of in the old way.

So again, in instances of rare combinations of the constituent elements of a new production, as in compositions of music, La Sonata di Diavolo of Tartini was the product of one of his dreams. He tells the tale himself as follows: "One night, it was in the year 1713, I dreamed that I had made over my soul to his satanic majesty. . . . Among other freaks it came into my head to put the violin into his hands, for I was anxious to see whether he was capable of producing anything worth hearing upon it. Conceive my astonishment at his playing a sonata, with such dexterity and grace as to surpass whatever the imagination can conceive. I was so much delighted, enraptured and entranced by his performance, that I was unable to fetch another breath, and in this state, I awoke. I jumped up and siezed upon my instrument, in the hope of reproducing a portion at least, of the unearthly harmonies I had heard in my dream, but all in vain; the music which I composed under the inspiration, I must admit the best I have ever written, and of right I have called it the "Devil's Sonata;" but the falling off between that piece and the sonata which had laid such fast hold of my imagination is so immense, that I would rather have broken

my violin into a thousand pieces and renounced music for good and all, than, had it been possible, have been robbed of the enjoyment which the remembrance affords me."

Figuratively speaking, Tartini's account shows that he never once dreamed of the true state of things pertaining to sleep—*where noise never obtrudes*. It did not dawn upon him that he had SEEN music in his dreams in its only true terms of Form, Color and Motion, so wedded was his intellect, like that of most musicians, to the illusions of the brain through the ear. The instant consciousness of noise obtrudes that instant are you awake.

There is a curious story connected with the production of another celebrated piece of music, the Requiem of Mozart. During its composition, the spectre of a melancholy man in black appeared. He persistently repeated his visits to the musician, taking great interest in the composition, and even urged its completion without delay. After it was finished, the phantom returned no more. But very soon afterwards the requiem was chanted over Mozart's own grave.

"In tracing the mystery of a dream," says Dr. Walter Cooper Dendy, senior surgeon to the Royal Infirmary, London, England, in a quaint little volume, *The Philosophy of Mystery*, p. 180, "to its association with our immortal essence, reason will at length be involved in a maze of conjecture." Of course this is strictly true. But many hitherto inexplicable phenomena are at least partially elucidated by no longer denying to the despised and ignored genius of the Red element of life, personified in ELLU, a participation in the "immortal essence," whatever that may be.

Instinct may operate at any time without the mental act of *reflection*. It *may* reflect, but reflection is not necessary to it as it is to intellect. So prodigies of genius are sometimes produced, which would have been impossible to the intellect

of the subject. Intellect presupposes maturity. But Mozart composed a sonata at the age of four. By the force of intellect? Oh, no. By assuming a state of abstraction more favorable to the operation of some intuitive faculty of *his instinct*, where reflection and concentration operated "instinctively" as we say.

Dr. Dendy relates the story of a little girl, Louisa Vining, who was called the *Infant Sappho*, who even eclipsed Mozart. At the age of two years and eight months, she sang repeatedly a melody perfectly new, and so perfect, that it was written down from her lips, and was called "The Infant's Dream." "The little creature," says Dendy, "*was in such a state of apparent abstraction, that it was believed by all around her that she walked and sang in her sleep.*" (The italics are mine.)

Dr. Samuel Johnson relates a dream to show that reflection is absent during sleep. His dream was that he had a contest of wit with some other person, and that he was very much mortified because his opponent got the better of him. Which went to show that he could not have reflected upon it, since if he had, his judgment would have told him, that his supposed antagonist was in reality a part of himself. (That is to say, it was his ELLU, who, of course, possesses superior wit.)

Voltaire says in *Dictionnaire Philosophique*, "I have had, in my dreams, reflections in spite of myself, in which I had no part. I had neither will nor freedom, and yet I combined ideas with sagacity, and even with some genius. . . . Whatever theory you adopt, whatever vain efforts you make to prove that your memory moves your brain, and that your brain moves your soul, you are obliged to admit that all your ideas come to you, in sleep, independently of you and in spite of you—your will has no part in them whatever. It is certain, then, that you may think seven or eight hours consecutively, without having the least desire to think, without even being aware that you do think."

Voltaire found his opinions in good company for once, for as Elihu the son of Barachel the Buzite said to Job, "For God speaketh once, yea, twice, yet man perceiveth it not. In a dream, in a vision of the night, when deep sleep falleth upon men, in slumberings upon the bed, then He openeth the ears of men and sealeth their instruction."

Coming back to profane history, Socrates believed in the divine origin of dreams and omens and Tertullian maintained that the Deity had a special purpose in every dream. Owen said that sleep and presentiments were "one chief source of our knowledge."

"Do not tell your dreams to another," said Epictetus. How little that good advice has been generally followed in the present day, at least, may be inferred from the astounding growth and pretensions of all manner of occult frauds in general. If followed, it would surely make fortune tellers, fake astrologers, and advertising mediums and clairvoyants, much less conspicuous in the advertising pages of newspapers. Now while I would repeat the sage's good advice, I would do so with this amendment:—Make a note of your dreams in your own private Dream Diary. Do not prattle about it. Just quietly make your private record, and watch future results. No harm in that, but rather the potentiality of priceless knowledge. You may thus, perhaps, learn to heed your own soul's voluntary promptings through the radio-consciousness of ELLU.

I do not pretend to be qualified or able to discuss either the psychological or physiological problems of sleep. A recent book by Hereward Carrington, *Nutrition and Vitality*, presents some very striking ideas and arguments concerning the purpose of sleep. He argues that the old law of Conservation of Energy, is a glaring misfit, at least, as applied to human vitality as a sole product of food.

As to the main purpose of sleep, Hereward Carrington may be right or John Bigelow, LL. D., may be right. How can I presume to say? Its purpose may be purely somatic, as the materialists think, or its hidden purpose may be mostly spiritual and divine. I suppose the real truth may be somewhere between these two extremes. If one could find out just when sleep began—in what earth life relation or condition sleep and death were first called into existence, that would be a good beginning on which to formulate a guess. Because, according to some advanced biological theories the original or primitive protoplasmic cell was not endowed either with the property of Death or Sleep. (Wisemann.) If that be true, then some new condition in the cell's experience must have first brought about this now imperative necessity of all metabolic organisms for sleep.

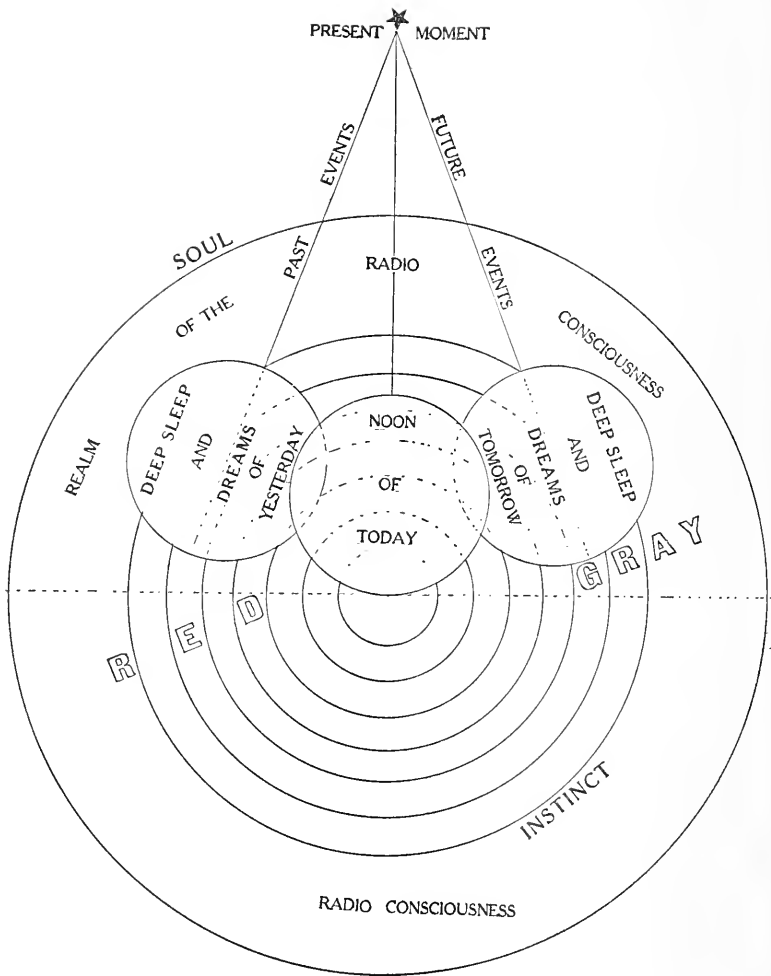
I am unaware whether this direct question has ever been propounded in any biological theory. It would be interesting to know. Primitive protoplasm, they say, was not endowed with the properties of sleep and death. It is probable that that first matchless pair of artisan inventors and architects of metabolic organisms—endoderm and ectoderm, never once slept. Not once in all the immeasurable and bewildering work of organic structure building—at least not until they became involved in the rudimentary foundations for a connective nervous system which the first forms had not, and even then, sleep was not for *them*, but only for that *gray* part of the system, and for nothing else.

Whatever its profound and inscrutable purpose, beyond all our guessing may be, sleep was doubtless first invented for the necessities of the gray element alone. Whatever tools and wondrous mechanisms based upon mechanical powers and natural laws, man's intellect has since invented, their prototypes were

used *instinctively* by endoderm and ectoderm, in root, plant, flower, seed and animal structure, long, long before the advent of man. And to this day, the Red cell, with its "vast intrinsic stores of lasting energy," is constantly and directly bathed by that ocean of Independent Intelligence where sleep is unknown; while the brain and the nerves are but the delicate mechanisms *invented for the exigencies of intellect alone.*

And that brings us to the promised diagram of sleep, omitted from the scheme of life faculties for this chapter. It seemed desirable to explain first, why the star of the Present Moment in each instance has been shown as in a position at the top of the diagram. That was only because the brain was symbolized as occupying the upper half of the Bubble of Life.

The Pendulum of Sleep.



The Pendulum of Sleep.

Scheme showing its Diurnal swing from midnight of yesterday to midnight of today. (Not theological.)

THE general idea is to present a conceivable way in which consciousness may make an excursion during sleep, out into the perceptive sphere of Instinct, and there gather up from that Radio Consciousness which I have supposed to exist between instinct and soul, such communicable information as may be permitted to earth life consciousness. The communications when not direct, might appear in the shape of vague presentiments or intuitions.

We are possessed of a faculty which the psychologists often refer to as the *waking* consciousness, that is, the reasoning, logical consciousness. But the Radio Consciousness of ELLU is that faculty which we all possess, which sleep surely and perhaps even death—*never obscures*. Radio Consciousness is represented in the diagram by the space between the soul and the Instinct which embraces the soul's memory and the consciousness of Instinct as symbolized by the two outermost circles respectively. To avoid all confusing repetitions of words, this diagram omits the names of all the other "faculties." But they are symbolized by the smaller circles, in precisely the same order as shown in the scheme of life Faculties on a former page; namely

beginning with Identity (the common centre of all the circles or bubbles); then Memory, (which is symbolized by the inner or concave side of *every* circle); then consciousness, (symbolized by the convex or outer side of every circle); then the five senses in their order, Touch, Smell, Taste, Hearing, Sight.

But the symbolic star of the Present Moment, must not be imagined as stationary over the *top* of the bubble. The bubble as a whole is supposed to be rolling onward, and the star accompanies as if it were a part of it (likened to the head of a nail protruding from a carriage wheel). So it always presents the same face to the same side of the bubble. That is to say, it is always opposite, over against, the side in which was located the brain, symbolizing perception. We saw in our pictured scheme of Progress the curious fact, that although it would thus seem to occupy in turn every point around the entire circle of the bubble in a single evolution, it never itself describes a circle, but an *onward path* in space.

So in the diagram of sleep the bubble symbol is the same as in the scheme of life faculties on a former page. It is to be conceived that the great sphere of the soul with all its contained lesser bubbles, symbolizing the senses, consciousness and memory—is rolling onward in space and time, not necessarily but only because *all* our conceptions are bound in space and time terms; yet its progress is as though time and space were not, and as though there were no up, no down, no right, no left and the pendulum swings always the same from any point in its course. This is no more difficult to “sense” than the fact that when the people in China look upward, the very same direction—in space—would be down to us.

Yet, as one might say, if you turn a pendulum clock up side down, “the devil is to pay.” All the same, the clocks in China are running upside down—to us. So the ball of the

pendulum of diurnal sleep forever oscillates serenely from its own legitimate pivotal point, the star of the Present Moment, which is forever moving yet immovable;—as for instance a clock's pendulum will continue its beats, swinging from the same relatively stationary point, while the clock itself is being carried bodily around the world, to China and back again.

For the sake of easy description the ball of the pendulum of sleep is shown in three positions. Its swing is supposed to be from midnight of yesterday to midnight of today, (the beginning of tomorrow). (We sleep twice in such a day of twenty-four hours.) Also for the sake of illustration, the *present moment*, in this instance, is supposed to be noontime of today. The pendulum hangs plumb—as it should. Then it is that you are supposed to be wide awake, and alert to know if things are out of plumb. Then it is that we measure to the thousandths of an inch. Then it is that an almost invisible mote of dust will so materially affect the scales, that the scientist boxes his balance with glass, against dust and air currents that would vitiate the test. Then it is that the limit of the microscope is found in the nature of light, rather than in the power of the lens. But for all that, since all such knowledge is sensual, then it is that *illusions are at their height*.

What could better illustrate the significant fact, that when we are most awake, we are most befogged and deluded—by the sense impressions that feed the intellect? Here, in the perishable Gray—home of the boasted intellect, is the *source* of all doubts and delusions, and hallucinations. What, I say, can better or at least more appropriately illustrate these facts to the physical eye, than this ball of the pendulum of sleep eclipsing most the region of the intellect during the waking hours? In other words, that the brain mechanism of the intellect is cleared for keen perception most when the pendulum has swung past that region out into the circle of the Instinct in deep sleep.

Again it was the old pagan philosopher who said "The night time of the body is day time of the soul." But this catchy epigram is equivocal in that it tacitly suggests the converse of the proposition. Whereas, there is no night time for the soul—according to the present conception, which gives to the true dominion of the soul all that which most writers strangely persist in calling by the misleading term, "*inner life*." This diagram shows the soul is in uncontaminated contact with the outermost—the Infinite. Bathed in the primal light of a pellucid day that never ceases.

It may seem almost pathetic that the overlauded and vain-glorious mind should be so far removed from all *direct* communion with the loftier elements of soul, while the mighty spirit of life perceives from its rightful throne in the realm of the Red, *which the pendulum of sleep never obscures*, how the serene and majestic peace and beauty of the soul is unperturbed by the pitiful limitations and illusions of Time and Space, conjured up of the sense perceptions of intellect and reason.

It must be remembered that consciousness was represented symbolically in the Scheme of Human Faculties, by the convex, or outside of each and every circle therein. The circle of every sense faculty has its own consciousness. Accordingly that portion of the ball of the pendulum of sleep, in the present diagram, which is nearest the circle of the senses, is appropriately marked "Dreams"—which the senses more or less dominate. While that part marked "Deep sleep," swings out into and across the region of the unhampered, prescient Instinct; and even overlaps the edge of the sphere of the Radio Consciousness of ELLU, which is our rational intermediary between Instinct and soul. The soul, which "knows all things," perceives how time and space baffle intellect and reason, but also how those human conceptions exist not beyond the little scope of earth life liens. So the

main idea of the diagram seems philosophical, as it is logically conceivable, that one's own consciousness may get a little glimpse in deep sleep, of a very small section to be sure, of that vast and incomprehensible masterpiece of the mosaic of events which Destiny is ever weaving into the symbols of dreams and intuitions, wherein she uses only the colors, forms and motions of nature, but from her own point of view where all the hath beens are is, and the shall be's are now.

But the idea would seem incomplete, did we not apply it, both to these cultivated powers of abstraction and rare flashes of genius, and to those distractions produced by accident, such as narcotics, magnetism, etc., which so strongly resemble natural sleep, especially in their prescient nature. The distinguishing difference seems to be in the fact that natural sleep is a necessity of the Gray, recurring at more or less exactly regular intervals, while the others may operate at any moment. The application of the idea is in the simple fact that they all have one feature in common, they all make possible, more or less perfectly, the same excursion of consciousness or perceptiveness out into the realm of prescient Instinct, the home of ELLU.

As sleep annihilates time and space, so in the region of no sleep there are no illusions, no hallucinations.

The dominion of the Red is the region of no sleep.

When you think you are wide awake, that is the time of your most confusing illusions.

The dominion of the Gray is never free from the obscuring influences of the senses.

But the star of your opportunity, as well as your "star of Destiny" is always the star of the Present Moment.

Trust your instinct to the end, said the philosopher, that in the end you may know why you trusted it. (and this despite all the fine reasonings under the "laws" of a fallacious and materialistic Intellect).

I would say more simply, if less poetically, Trust your Instinct; because it is nearer than Reason can ever come, to the God who made all laws—and itself perceives the fact.

The Second Way.

THIS class is comprised of all those efforts at divination where instrumental aids or material objects as aids, of one sort or another, animate or inanimate, that is, organic or inorganic, are availed of. But only when strictly *personal*. The most perfect example of which known to this age (or any other perhaps) is the Oracle of ELLU. Whenever such efforts make use of *another* human mind mechanism in any way, they would fall in the third class. Examples of this second class have ever been innumerable in all ages, times or places, of which perhaps the simplest and most familiar of the present day, is the oracular flipping of a coin.


In certain more complex and apparently inexplicable cases, savants are divided in opinion as to whether such manifestations as are evoked, (whether oracular or not), may proceed from some unknown extraneous and independent intelligence, or simply from a prescient telepathic psychic force residing directly in the subject operating. But if we do not admit any such thing as a *telepathic* force or faculty then the manifestation must be purely personal in its nature, though instrumental aids may be used. It would take volumes to enumerate the recorded efforts of mankind through past generations, at this kind of divination. They range from the flipping of a coin mentioned through all manner of intricate and complex casting of lots and auguries; from the use of all manner of organic to all manner of inorganic instruments. "Is not this it (the cup)," says the Bi-

ble,—(Gen. 44:5), “in which my lord drinketh and whereby he divineth?” They range from the light use of inanimate material aids, for the most trivial purposes to the organic as well, to watching the behavior of a chicken, by means of which the most momentous and gravest affairs of state of the great Roman Empire were decided.

So fire, water, earth, air and almost every conceivable thing therein and aspect thereof, have contributed to swell the enormous aggregate of instances embraced under this second class, so unremittingly persistent has man’s effort been to grope, somehow, anyway, into friendly touch with that invisible and unknown, but immanent power of a responsively intelligent Destiny which he has never ceased to believe must govern his fate and fortune, that it is utterly impracticable to attempt any general citation of typical cases. Probably the most perfect example of this second class of personal divination ever invented by the genius of man is the Oracle of Aaron’s Breastplate. Derived, if not directly from the Chaldean Tablets of Destiny, at least from a common source, more ancient than either.

The Third Way of Divination

CLAIRVOYANCE:—A power attributed to persons in a mesmeric state—by which they are supposed to discern objects concealed from sight and to see what is happening at a distance.” —*Century Dictionary*.

T will be remembered that the third way of divination was defined as indirect and impersonal. That is, that it operated only through the mediumship of another mind mechanism, commonly known as clairvoyance. It is termed “seership” by Professor James of Harvard University, and “Lucidity” by a celebrated French savant. An enormous mass of authentic record of these phenomena has been available for study throughout all history, and is especially prominent in all sacred literature. All prophecy and seership belong to this class.

It is, however, only in comparatively recent years, dating from only something over thirty years back in fact, that any well considered purpose or system of collaboration has been observed in such records. This began with the formation of societies for psychical research, composed of eminent scholars and men of science of all nationalities. Authentic records of the investigations of this class of cases, together with so-called “materializations,” form the bulk of all the volumes of “Proceedings” and “Annals” of the various societies.

Records and accounts of cases of this third class, cases of prescience by seership or lucidity, are so common and well known that it seems quite unnecessary to weary the reader with selections. I have therefore selected only one of the most typical of this class and perhaps better authenticated than most modern instances of prescient seership, namely, the one known to psychologists as the "Titus Case."

At a cursory glance of the circumstances, this case seems to hinge simply upon the mysterious disappearance of a young woman by the name of Miss Bertha Huse, and the subsequent finding of her body, from information given by a Mrs. Titus, in private life, that is, not a professional clairvoyant. Thus considered the case would not be so very unique or astonishing, as such events have been more or less common. In fact, the London Annals of Psychical Science, in reviewing this case, refers to it in no special way.

Whereas, in my view, the two most significant features of this case seem not to have been commented upon: namely, (1) the strong, clear, unmistakable evidence which it affords of a well marked case of prescience aroused by a presentiment of a calamitous event *before its occurrence*; and (2) revealed during the usual hours of sleep, in a state of natural sleep, and not in an artificially induced clairvoyance. Though that fact does not take it out of the third class, since it operated, not through the brain mechanism of the victim, but through that of another person.

This so-called Titus case is one of the most remarkable I have ever seen recorded, both in that respect and in the subsequent states of "lucidity," which miraculously found what was otherwise absolutely and irrecoverably lost. Yet its sleep prescient-feature is by far of the deepest significance and importance, and best of all, authenticity of the facts is vouched for by the

highest possible respectability, no less, in fact, than that of William James, Professor of Psychology of Harvard University, to whose courtesy I am indebted for the privilege of quoting from his report, which was printed in Vol. II, part I, of the Proceedings of the American Society for Psychical Research, and partially reproduced in the London Annals of P. S., Vol. VI, pp. 295 to 301.

For the more ready apprehension of the case from a brief account, I append the following explanatory list of the persons actively engaged in this strange little drama from real life.

MISS BERTHA HUSE—The girl who mysteriously disappeared, whose body was found in the most miraculous way.

MR. GEORGE TITUS—Employe of mill at Lebanon, N. H., who instituted the search that led to discovery.

MRS. TITUS—Wife of Mr. Geo. Titus; possessing remarkable prescient power.

MR. J. C. AYER—Mill supt., aiding in the search.

MR. W. R. SUNDERLIN—Mill employe, aiding in the search.

MR. WHITNEY—Owner of mill at Enfield, near Lebanon, aiding in the search.

MR. SULLIVAN—Professional diver from Boston, who recovered the body, under direction of Mrs. Titus, from its astonishing position in the lake.

DR. HARRIS KENNEDY—Who investigated the facts and collaborated with Prof. James in the published report.

I will take the liberty to begin quotations from Professor James' report with the direct evidence of Mrs. Titus' prescient presentiment which preceded the fatality. Let the quotations tell the story:

"On Sunday, October 30, 1898, Mrs. Titus of Lebanon, said to her husband, 'George, something awful is going to happen. I cannot tell you what it is now, but can later on.' Monday morn-

ing, October 31, just about 6.40 A. M., as Mr. Titus was leaving for the mill, his wife said, 'that has happened.'

"At noon, Mr. Titus told his wife that the Huse girl (a sister of the one missing) had gone home, remarking that her mother was perhaps ill, at least so some people at the mill thought. Mrs. Titus replied, '*It is something worse than that, I can feel it.*' (The italics are mine.)

"Monday evening, they heard the girl was missing.

"Tuesday, November 1st, Mrs. Titus talked about the matter and said, '*that girl is in the lake.*'"

The following is taken from Dr. Kennedy's report:

"On Monday, October 31, 1898, Miss Bertha Huse left her home at Enfield, N. H., at 6 A. M., before the rest of the family had risen. She took her way down the street towards Shaker Bridge. On her way, she was seen by several people, and by one person when she was on the bridge. Her family, learning of her absence, instituted a search for her, and during the greater part of the day, one hundred and fifty men, more or less, hunted the woods and lake shore in that vicinity.

"This search proving of no avail, Mr. Whitney, a mill owner of Enfield, sent to Boston for divers, with a suitable outfit. A diver named Sullivan worked the better part of all Tuesday, and up to Wednesday noon, *without success in the lake.*"

The following account is from the testimony of Mr. George Titus:

"Wednesday, November 2nd, about 7.30 P. M., after having washed her dishes, Mrs. Titus was sitting in the rocking chair. Mr. Titus spoke to her three times in a low tone and the fourth time loudly, *and she woke up.* 'George, why didn't you let me be, in the morning I could have told you where the girl lay and all about it.'

"She then got up and walked about the house before she went to bed, which was between 8.30 and 9 P. M. After talking a short time, both Mr. and Mrs. Titus fell asleep.

"At 11 P. M., Mr. Titus woke her up. *She was talking in her sleep* with the diver, and hit her husband, saying, 'she is not down there but over here to the left;' she begged her husband to leave her alone.

"At 12.15 A. M. (Thursday morning) she again went into a trance which lasted until one o'clock. Mr. Titus lit a lamp and watched and talked with her in very low tones; when questioned *on this subject*, she would answer, but *did not hear about other things*.

"She said something about cold, and Mr. Titus said, 'Are you cold, Nellie?' She said, 'Oh, Oh! I am awfully cold.' This, Mr. Titus said, referred to the drowned girl.

"After she came out of the trance at one o'clock, she told it just as she had it in the trance.

"In the morning, she said it was her duty to go over to the bridge at Enfield, and Mr. Titus asked Mr. Ayer to let him off, which Mr. Ayer did."

The report goes on to state that while talking in her sleep, Mrs. Titus spoke in substance as follows:

"She followed the road down to the bridge and on getting part way across it stepped out on that jutting beam which was covered with white frost. There she stood undecided whether to go into the water there or go up over the hill to the pond. While so standing, she slipped on the beam, fell backwards and slid in underneath the timber work of the bridge. *You will find her lying, head in*, and you will only be able to see one of her rubbers projecting from the timber work."

The report goes on to state how a Mr. W. R. Sunderlin, also employed at the same mill, was not able to help laughing when Mr. Titus gave the fact of his wife's vision, as the reason

for his request for a day off. But as Mr. Titus persisted, Sunderlin advised him to go and find Mr. Whitney who was foremost in the search. But Mr. Whitney also smiled incredulously when he heard the story, but consented willingly to make the test. Mr. Whitney, with many others was present at the discovery of the body.

Dr. Kennedy's account continues as follows:

"When they reached the bridge, Mrs. Titus pointed out a certain spot where she said they would find the body in the position already mentioned. Mr. Whitney sent a messenger to get the diver, who had been working in the neighborhood of that spot on the previous days.

"On his arrival, Mrs. Titus pointed out to him the spot where she said the body lay. He said, 'I searched there yesterday and found nothing.' She said, 'Yes, you searched there and there, (pointing to certain spots), but *you did not search there*, and if you go down *there*, you will find only the rubber of her shoe projecting from the timber work.'

"To satisfy her, he put on his diving suit and went down at the spot indicated. After a moment or two, the bonnet of the dead girl rose to the surface, and shortly after, the diver came up bringing the body.

"The diver then said, 'I did not look in this place yesterday as the brush and debris were so thick that I could not see; in fact, all I could feel of the body was the rubber projecting from the timber work.'

Since the words trance and sleep seem to have been used somewhat indiscriminately in the testimony, I desire to call particular attention to the following item from Dr. Kennedy's account:

"Mrs. Titus is not known to have made any pretense of being a clairvoyant, having never used her trances for any pecuniary reward or for the sake of any notoriety. On the following day, viz., Nov. 4th, Mrs. Titus was very ill."

The following is taken from the deposition of the diver Sullivan, who says that most of the inhabitants of the neighbor-

hood were searching the woods in every direction during his search in the lake. He says:

"Mrs. Titus walked along the bridge and came to a spot and said: 'This looks like the spot I saw in my trance;' then after a moment's hesitation, she said, 'No, not exactly,' and walked a little way along and stopped at another point and said, 'This looks very much more like the place I saw last night.' She stood there looking over the rail of the bridge from twenty minutes to half an hour. At last she said she was sure that was the place.

. . . "It is my business to recover bodies in the water, and I am not afraid of them, but in this instance, I was afraid of the woman on the bridge. I thought to myself: 'How can any woman come from four miles away and tell me, or any other man, where I would find this body?' I investigated and felt her foot and made sure it was a body. She was lying in a deep hole, head down. It was so dark that I could not see anything, I had to feel entirely."

The diver goes on to relate that Mr. Whitney asked him what he thought about it and that he replied: "I don't think at all, I am stupefied." . . . "She must have *seen* the body as it was lying, because she described the position, and she had already pointed out the place I was to go down, and nobody could have known who had not *seen the body* as it was lying at the bottom. If you ask me how she knew it, I don't know, but if you ask me if I believe in it, why, I have been convinced against my will."

Mr. Whitney says in his testimony that he cannot add much to what has already been said on the subject. He says:

"All that I can add is that Mrs. Titus certainly was unaware of the circumstances of the accident, since she had not been to Enfield, where this happened, for two or three years."

In the summing up of all the testimony, Professor William James finds that it is open to three naturalistic interpretations, that is, excluding entirely any supernatural hypothesis:

1°—That of following the trail of the girl by the track of her feet in the thick white frost, which was traceable from the girl's home to the bridge.

2°—The possibility that Mrs. Titus herself was with the girl, or present somewhere in sight when she fell into the water; and by complicity of her husband, invented the story of the trance.

As matter of fact, these very interpretations were pointed out to the diver Sullivan, who merely replied: "All right, but in that case, how could she know *the precise position of the body in the depths of the water?*"

3°—That Bertha Huse intending to commit suicide, *may have confided her intention to Mrs. Titus and the manner in which she meant to carry out her design, either directly or through her sister*, who was working at Lebanon, and was probably known to Mrs. Titus. It is pointed out that psychologically, this hypothesis is more improbable than the first two. The extreme precision of the information given by Mrs. Titus alone refutes this hypothesis. The futility of it is further shown by the diver.

"Q. You think that Mrs. Titus pointed to almost the exact spot where the body was found?"

"A. I *know* she did. If it wasn't for her the body would not have been found."

"Q. You say it was too dark for you to see?"

"A. It was total darkness. It is clear water but the crib work cuts off the light." . . .

"Q. You found her with her head down and feet up in almost the exact spot Mrs. Titus indicated?"

"A. I might say to an inch." Again, elsewhere in the diver's testimony it appears that the circumstance which impressed him most, was that he was told by Mrs. Titus that no part of the dead body could be reached excepting only the foot which protruded from the timber work, and in that way only was he able to touch or reach the body.

Reviewing all the facts, Professor James concludes as follows:

"It is plain enough that neither of these three naturalistic explanations has the least plausibility. A reader to whom the hypothesis of clairvoyance is impossible had far better explain the case as a very exceptional one of accidental coincidence. I

should unhesitatingly do this myself were cognate cases *rarissimi*. But the records of supernormal seership of various types and grades which the *Proceedings of the S. P. R.* are more and more abundantly publishing, make, it seems to me, the scientific '*non-possumus*' absurd."

"There is an almost identical case, for instance, in Vol. XI, p. 383, ff. where the corpses of two drowned boys named Mason, were found in Chituate Lake, near Natick, Mass., through directions given by a Boston clairvoyant named Mrs. York. See also a similar case on page 389 of the same volume.

"My own view of the Titus case consequently is that it is a *decidedly solid document in favor of the admission of a supernormal faculty of seership*, whatever precise meaning may later come to be attached to such a phrase."

This happens to be a case of the power of "seership" applied to an immediate, material, and practical end. But as matter of historical fact, the most prominent and universally best known instances where this human power has been called into action, have been more strictly idealistic and spiritual in their purport.

Bozzano says in work previously quoted, (p. 359), "such cases (referring to prophecy), persistently appear from time to time throughout history and exert great influence, so that we can affirm that they constitute the necessary foundation of all religions, past and present, as the sacred books of nations abundantly testify.


"What great souls there have been among the seers!

"From Elijah and Isaiah to St. John and St. Paul; from Buddha and Mahomet to Pythagoras and Plotinus; from Socrates to Swedenborg; from Saint Theresa to Joan of Arc; from the Seeress of Prevoiret to Mme. d' Esperance; from Jackson Davis to William Stainton Moses, it is one brilliant and unbroken succession of aspirants toward the ideal, of elect souls in thought and feeling.

“As regards their contents, these visions relate almost always to states and conditions in spiritual spheres; it would seem as if the impenetrable order of transcendental existence were thus translated into representative symbolic terms in order to render it accessible to human intelligence. At other times, the visions are solely destined for instruction; when this is so they are displayed as panoramic pictures in which instructions and moral counsels or spiritual truths are symbolically introduced, so as to produce ineffaceable impressions on the mind of the seer. Sometimes also, the seer is impelled to automatically draw pictures, diagrams, emblems of all kinds, the allegorical signification of which would often remain unintelligible if they were not by the same process revealed to the percipient.”

The Kindly Power of Ellu.

A Personal Experience.

 IN the amazing examples of intuitive perception previously referred, and in the further example I am about to give, of the intuitive previsualizing of a *future event* which occurred in my own experience it may forever remain a mystery *how* such perceptions function. But while it is impossible to describe or even imagine the process, it is not inconceivable as potentially possible, even to material brain mechanisms—*moved by a superior Intelligence.*

For instance one can easily understand the logic of the beautiful and mathematical symmetry of new designs, that result from vari colored bits of broken glass moved to new positions in a kaleidoscope with three or four direct reflecting surfaces. But not so easy when the new element of *indirection* is added. For, if the arrangement is with five or six or more mirrors, then instead of increased beauties and complexities of design appearing, all *visible* symmetry is destroyed. Yet it exists in theoretical potentiality just the same; and if we know how to collect and reassemble and project the necessary indirect or auxiliary reflections, we could see them in new symmetries. No one can doubt the simple fact that the added mirrors reflect something somewhere.

There is a plenty of valid reasons for a dearth of authentic documentation of cases of premonitory intuitions, and the pre-visualizing of future events—First, because *before* the event the vague and enigmatic symbols of the presentiment are hard to interpret. And second because when premonitions of a *fatality* are not heeded and the recipient goes on to his doom, there is no way left to authenticate the fact for comparative study,—*unless the victim himself made an immediate written record of the fact of the premonition before the event.*

That is why I have conceived the usefulness and value of such a record to be beyond question, and have suggested it in the form of the Dream Diary appearing in the appendix at the end of this present book.

Phenomena of this class, where there is a distinct and direct presentiment of an impending event, present by far the most important evidence that can be found bearing on the question of divination or possibility of a glimpse into the future. Unfortunately these have always been of that strictly personal and elusive nature which have the least documentary support of all the data gathered by the scientists.

Maeterlinck asks, "Is it true, as many assert, that from the very morning we have a sort of intuition of the events that threaten the day? It is difficult to reply inasmuch as our experience can bear only upon events which 'might have turned out worse,' or which at least have had no serious results. It seems natural, therefore, that these accidents which were to be free from consequences should not have stirred the deep waters of our instinct beforehand; and I believe it to be true that they do not even ripple their surface. As for the others; which entail a more or less speedy death, their victims seldom possess the strength or lucidity required to satisfy our curiosity. In any

case, all that our personal experience is able to gather on this subject is very uncertain; and the question remains."

If Maeterlinck means by "free from consequences" anything which falls short of a "more or less speedy death," then I most assuredly do not agree with him. For, in that case there could be no such thing as presentiment or forebodings of any threatened disaster which Destiny might avert. Judging from my own personal experience that conclusion is utterly wrong. For I could fill a volume from a long experience rich in events of that very kind out of my own life, where death and appalling disaster were apparently miraculously escaped by a counter event as comparatively trivial as the falling of a hair: But will content myself at this time with the following which first set me to watching for, and heeding those strange little pictures that preceded them.

It was when I was a little fellow, but the impressions then produced were all so intense, that to this day they are all faithfully recalled by the peculiar odor of fresh cut *white pine sawdust*—a resinous and delicately aromatic pungency, like which there is nothing else in the world. Not at all like the heavy odor of the southern or yellow pine. In the little village of Orono in Maine, on the Penobscot river, where I was born, were the Basin Mills, that sawed the magnificent logs of white pine into merchantable lumber.

In those days they used the old fashioned ponderous "gang" saws, which, plunging up and down with terrific force through a pit in the floor would cut up a whole log at once into a great number of planks. As many planks as parallel spaces between the saws that composed the "gang."

When my father was there, I was sometimes allowed to play about the mills. It was great sport to lie across the slow

moving log and ride almost up to the saws, and then run back and take a new position.

The mill men use a short handled, broad bladed, keen edged "shop axe," to trim off troublesome snags, leaving it usually in some convenient place, near the saws. This time it was left sticking in the log, far from the saws, and near where I had taken my position for a ride. I looked at its keen, bright edge askance, but stretched myself across the great log on my belly with my arms hanging only a little way down one side of the monarch pine, and my legs on the other side. The remarkable and significant point of the story is connected with this axe which was between me and the saws.

The most vivid part of my recollection however, is the picture of the *floor* of the mill as it seemed to flow slowly past me while the log moved steadily forward. It was not the floor of the mill at all; it was the road home and the chips and pieces of bark that littered the floor, were no longer chips and bark, but little stones and grass and wild flowers by the way side; and as I pointed and nodded to these, they responded with little glowing spots of red.

Finally when the hiss of the greedy saws grew near and sharp, I looked once more at the axe, with my mind made up to get off the log. In directing my eyes that way, I saw the mill man, who was on the other side of the pit. He was motioning me to get off and also pointing his finger directly at the axe.

His mouth was open, his lips were moving; he was evidently shouting, but the noise of the clanking machinery that dragged the great log against the saws, and their crunch and hiss as they tore their way through the immense tree trunk was such that no sound of his voice reached my ears. Mistaking his gesture concerning the axe, and supposing that he wanted me to hand it to him, I sprang off the log, grasped the axe and started quickly

and *directly* towards him, bent only on securing his good will—for another ride. I say directly, by that I mean without going around the huge timbers that framed and guided the “gang” in its terrific upward and downward plunges, intending to stand upon the brink of the pit into which the saws plunged in their downward stroke, and pass the axe across to him, through the open frame space. At the bottom of the pit was the silent flow of the great black river.

All this was the work of a moment, but in that moment, as the man read my eager motive to obey, I noticed an appalling change come over his face. I think he uttered a scream though I heard it not, being so near the source of a greater noise, but others at a distance must have heard his former shouting, for out of the “tail of my eye,” I saw men running towards us, among them, my father. There was no hesitation in my movements, however; with a swift glance downward, I perceived that the end of a new, clear, white plank, on the floor near the huge post that formed one side of the great frame, overhung by a few inches the brink of the pit.

As I lifted my foot, intending to step up and out upon the end of that plank, some sudden impulse caused me to *straddle* it instead—then I knew no more about it for in that instant I was plunged headlong into the pit by a blow upon my head.

I was told afterwards that the ponderous cap beam that held the top of the great gang of saws in its terrible downward sweep, had struck me squarely upon the top of my head. It needs but an instant’s reflection to show that had I stepped upon that piece of plank, raising my body just so much higher and straighter under the swift descending beam, my skull would have been crushed as the fall of an elephant’s foot would crush an egg shell.

That was the tragedy the horrified mill man foresaw. But *instinctively*, or somehow stretching wider my legs to step below the plank, lowered my whole body so that the prodigious power of the descending beam was changed to its upward thrust, exactly at the moment it tapped my head. As it was, I was only stunned. The very least which that ponderous gentle beam *could* do under the circumstances, was to cut my scalp open in pushing me out of harm's way.

The wound bled most astonishingly, but I landed upon a soft little island of refuse "edgings" bark and saw-dust that *happened* at exactly that moment to be floating very leisurely, directly under the pit; as if trundled there by unseen hands, for me.

So thin and frail is that little gossamer web of Destiny that shimmers and flashes between Past and Future, a breath may rupture it—and yet so prodigiously strong that it plays with the power that devours whole forests in its play.

Presently I was taking another ride. This time lying across my father's broad shoulder (he was a giant in those days, six feet two in his stockings,) as with wide strides he was carrying me swiftly home. And there again along the road was enacted for sure the prophetic little drama of the changing floor. Lying across my father's shoulder, I gazed downward, watching for the little drops that still fell from my wounds, dotting weeds and stones along the way with their bright little spots of red.

That is only one of the many instances in my own personal experience that explain why I could not quite agree with M. Maeterlinck, concerning those disasters that are not fated to end in death. But in a more general way, what he writes in "The Psychology of Accident," of the operations of the Instinct in moments of great peril, is masterly and magnificent,

and coincides exactly with my own decided opinions concerning the power and majesty of the "Red" element in human life—which I have personified as ELLU.

"It is evident," says Maeterlinck, "if our lives had only the intervention of this indolent, this too logical dilettante (intellect) to rely upon every accident would be fated to end in disaster. Luckily, warned by the nerves, which whirl, lose their heads and bawl like terrified children, another figure bounds upon the stage, a rugged, brutal, naked, muscular figure, elbowing its way and seizing with an irresistible gesture such remnants of authority and chances of safety as come within its reach. We call it instinct, the unconscious, the subconscious: it matters not what we call it. Where was it? Where does it come from? It was somewhere asleep or else busied with dingy and thankless tasks deep down in the primitive caverns of our body. Once it was that body's uncontested king, but for some time since, has been relegated to the lower darkness as an ill bred, ill dressed, ill-spoken poor relation.

"Fortunately it has a decent nature, is utterly unselfish and bears no grudge. With a glance that is surer and swifter than the tremendous overrush of the peril, it takes in the situation, then and there unravels all its details, issues and possibilities and, in a trice, affords a magnificent and unforgettable spectacle of strength, courage, precision and will, in which unconquered life flies at the throat of unconquerable death.

"This champion of existence, upstarting like the shaggy savage of the fairy tales, who comes to the rescue of the disconsolate princess, works miracles in the strictest, the most precise sense of the word. Above all under pressure of necessity, it has one incomparable prerogative, it knows nothing of deliberation, of all the obstacles which it raises, all the impossibilities which it imposes.

"Instinct never accepts disaster, not for a moment admits the inevitable and, when on the point of being smashed to atoms, acts cheerfully against all hope, as though doubt, anxiety, fear, discouragement were notions absolutely foreign to the primitive forces that quicken it. . . . The danger once past, reason stupefied, gasping for breath, unbelieving, a little disconcerted turns its head to take a last look at the improbable. Then it resumes the lead, as of right, while the good savage that no one dreams of thanking, returns in silence to its cave."

Who can doubt that that was the kindly generous giant that seized the machinery of "motor settings" and planted my little legs astraddle that plank, instead of upon it where sure death lurked?

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Records.

Were memory as faithful to dreams as perception is there fruitful, wisdom were here.

Yet ELLU may transcribe on memory the meaning of all dreams.


Oneirocritic Journal

or

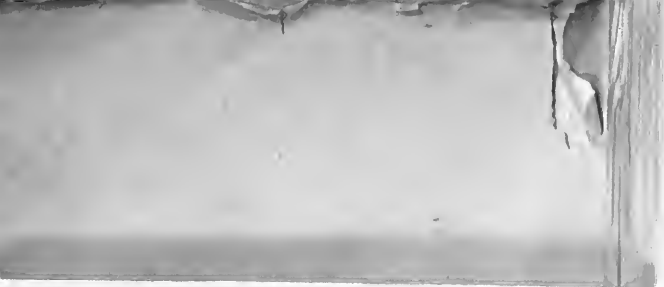
Dream Diary.

In deep sleep we are in a region "where the will is destiny's ripest fruit."

Not to allow one's self time for dreaming means spiritual impoverishment.

T has been explained in another place why it is well worth while for all people to keep a private record of their dreams and intuitions or presentiments, especially the notable ones; as well also a record of those answers by the oracle which are considered at the time, in any way remarkable. A simple form is herewith presented, to facilitate that very important step in the better ordering and understanding of one's own psychic life experiences. It costs but a slight effort and may result in an incalculable gain in a more subtle knowledge of the powers of the hidden SELF.

The record should be made while the incident is fresh in memory, noting carefully the exact time. It would be well to have a trusted friend initial the record, while the incident is fresh, and *before* any eventuation of the forecast happens for future verification as a trustworthy record.



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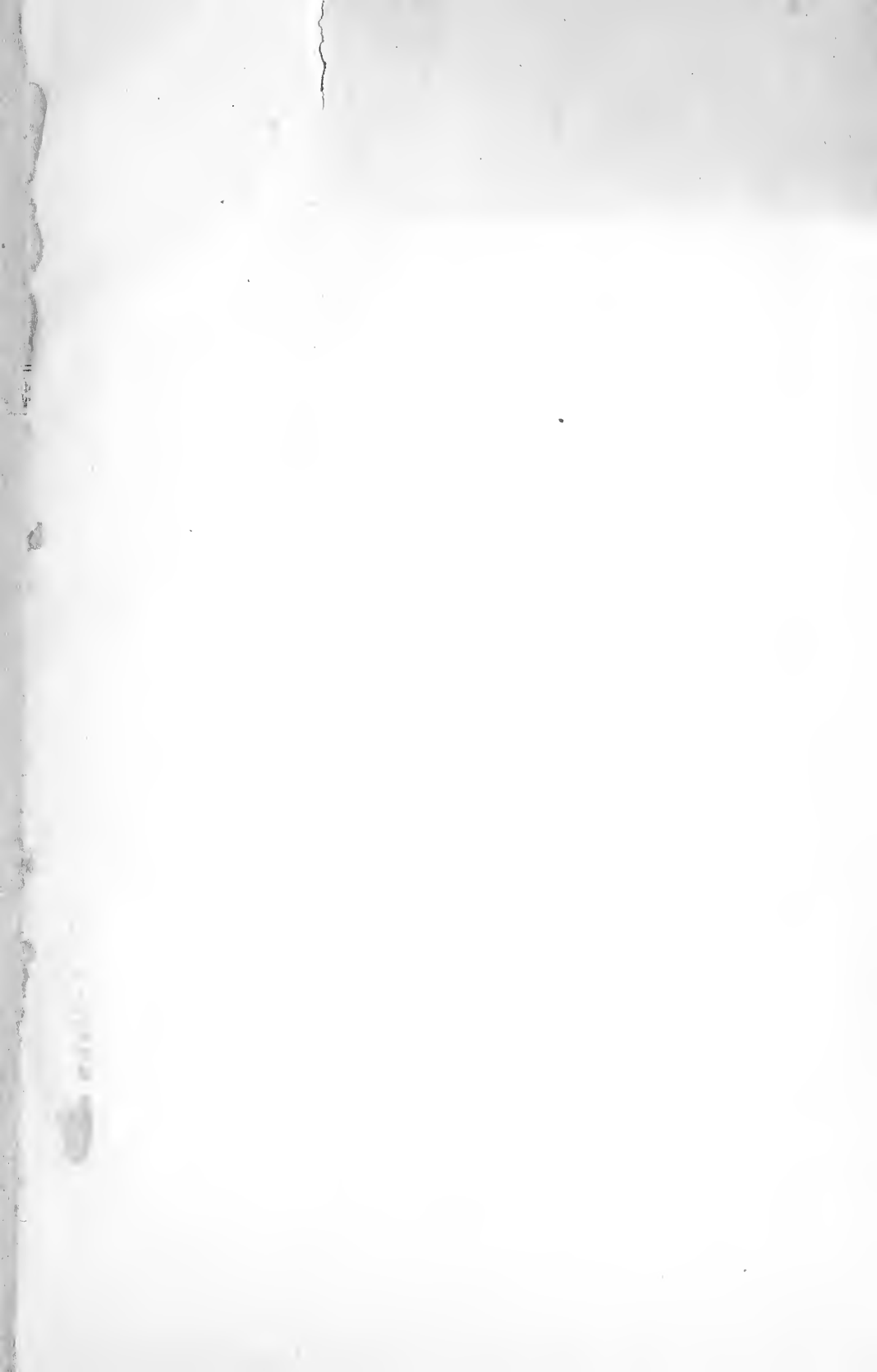
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